

Fig. 1

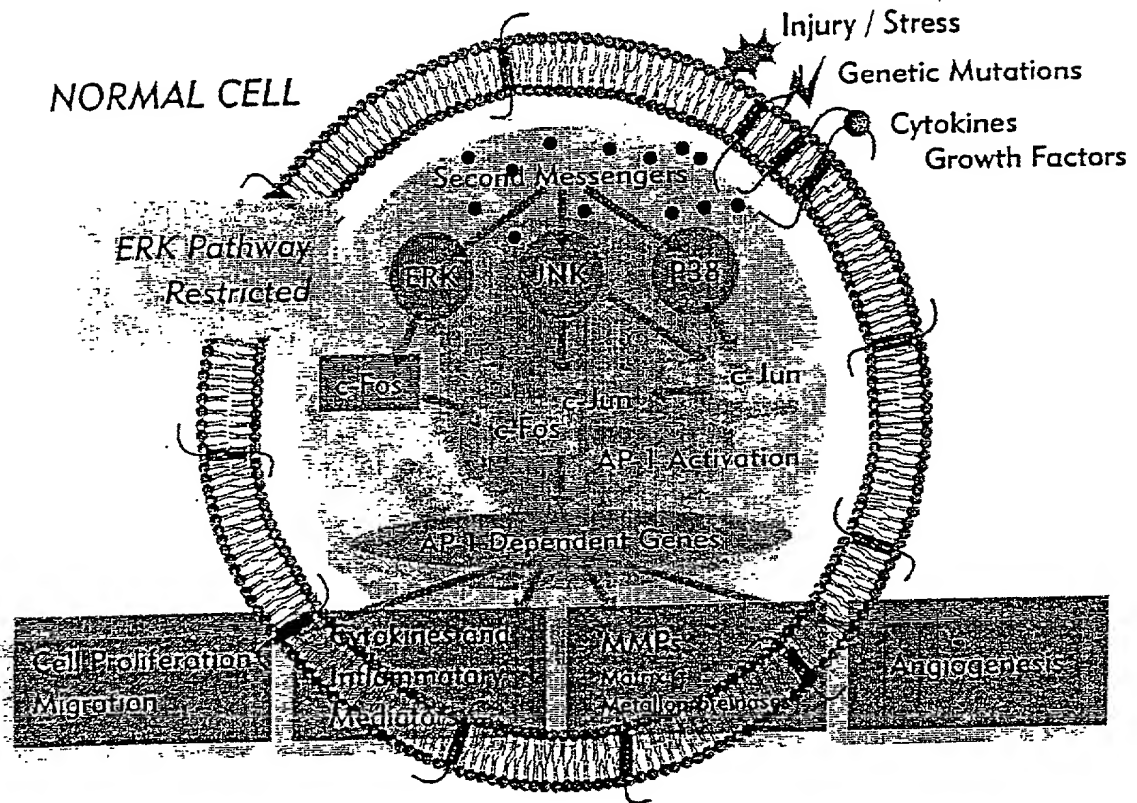


Fig. 2

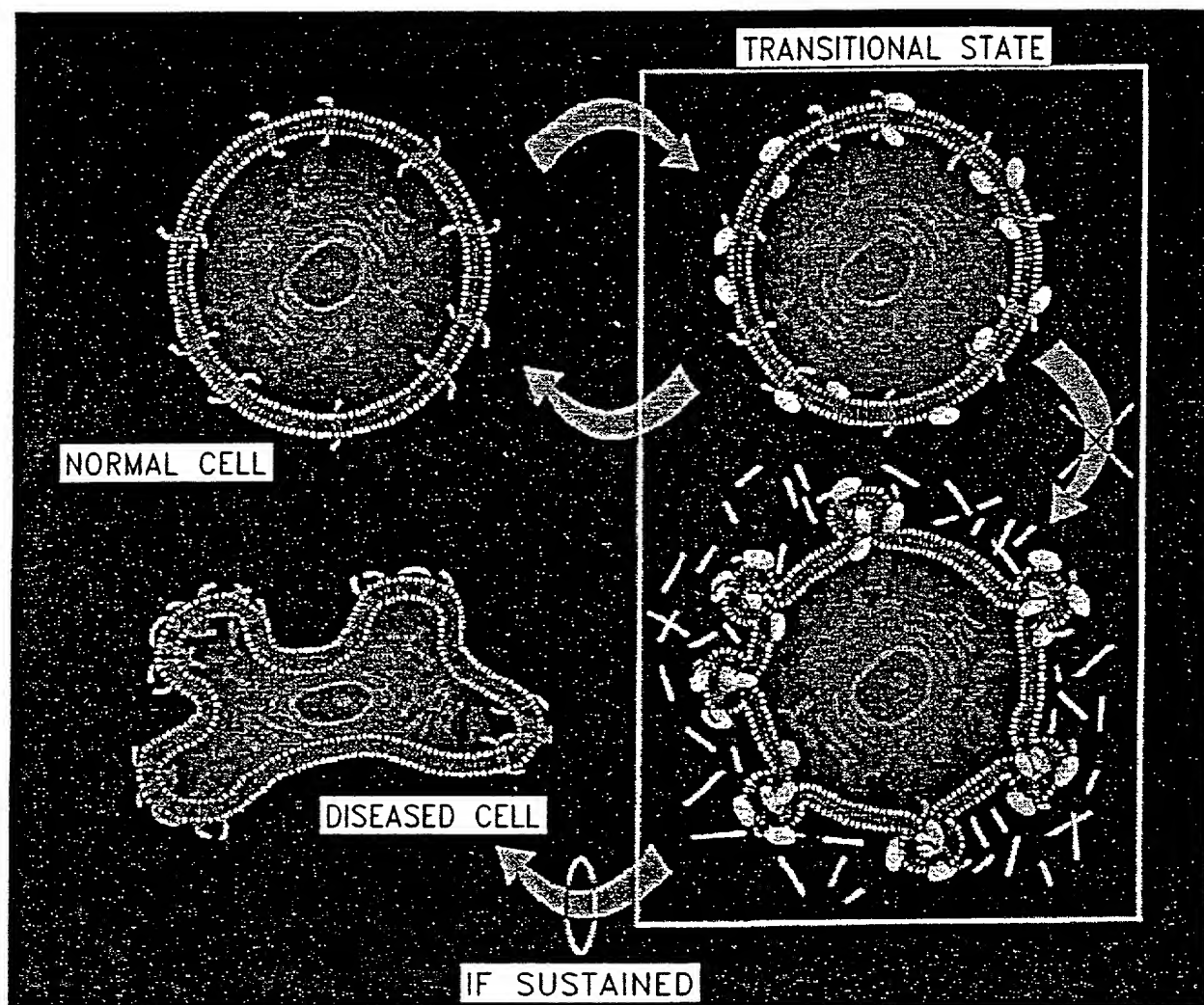


Fig. 3

-Focal Adhesions (-FA)

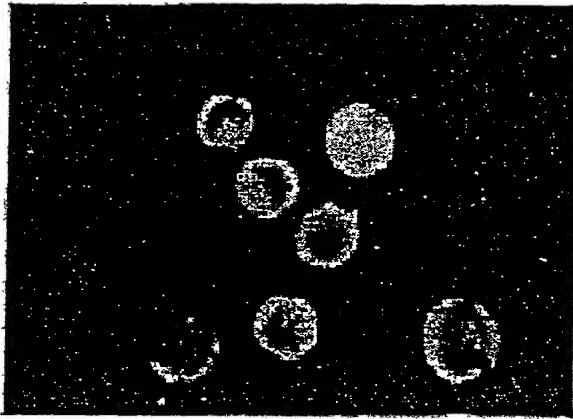


Fig. 4A

+Focal Adhesions (+FA)

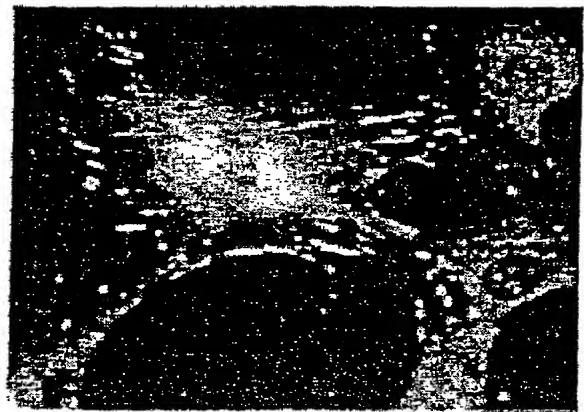


Fig. 4B

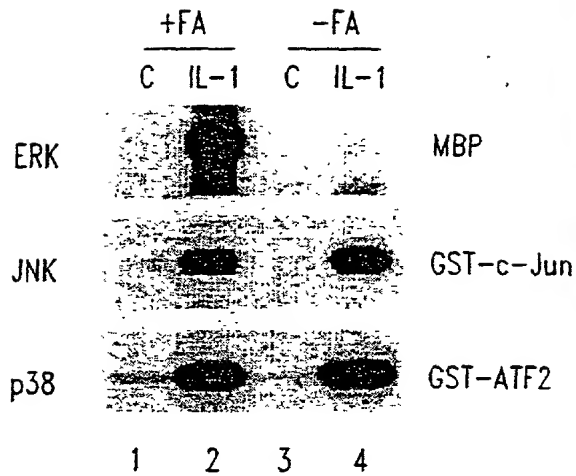


Fig. 4C

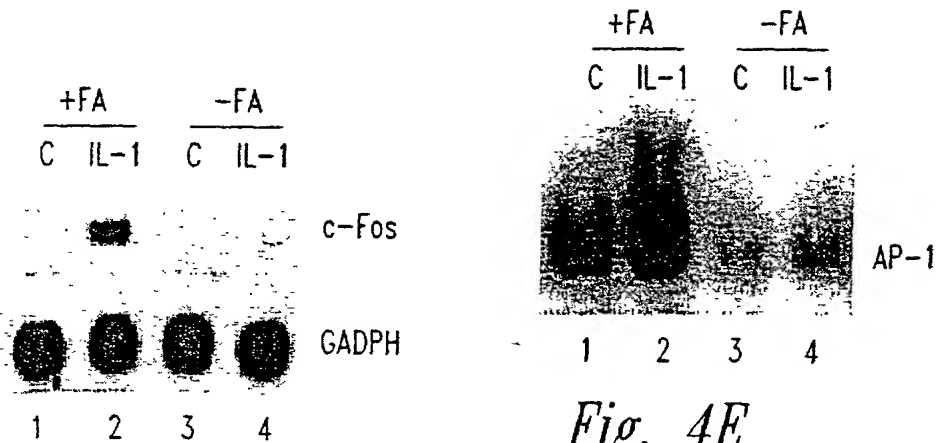


Fig. 4E

Fig. 4D

05978309.101501

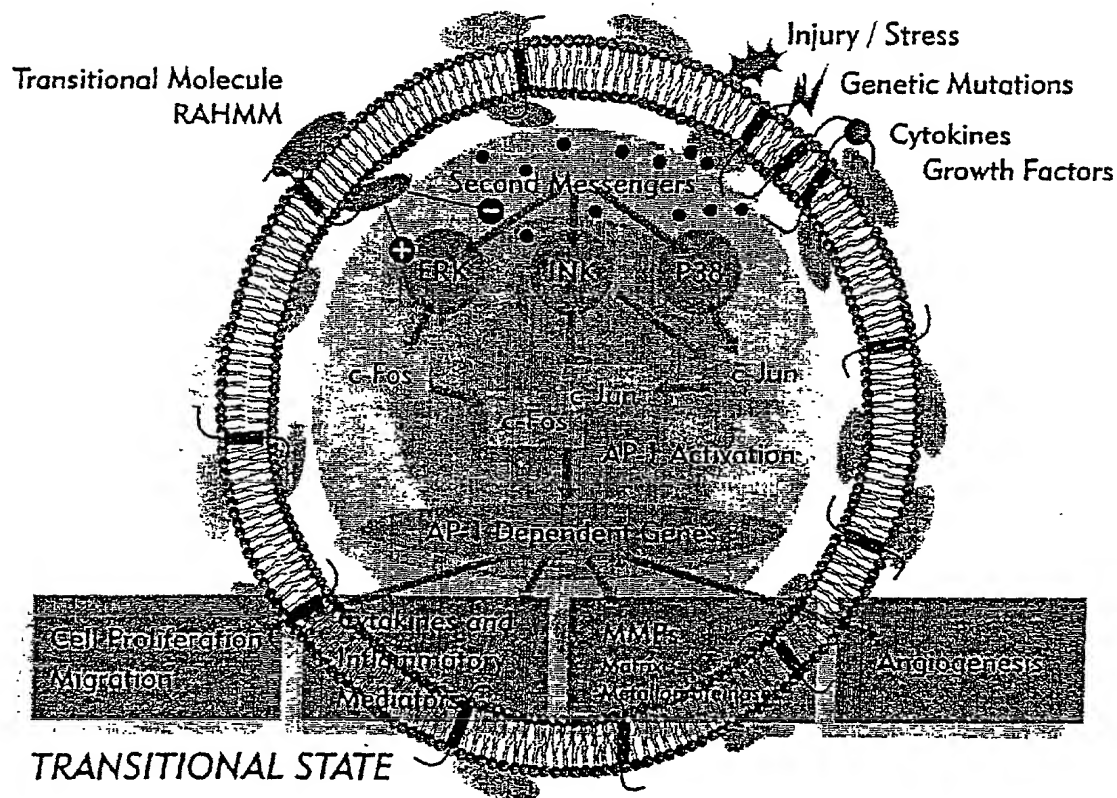


Fig. 5

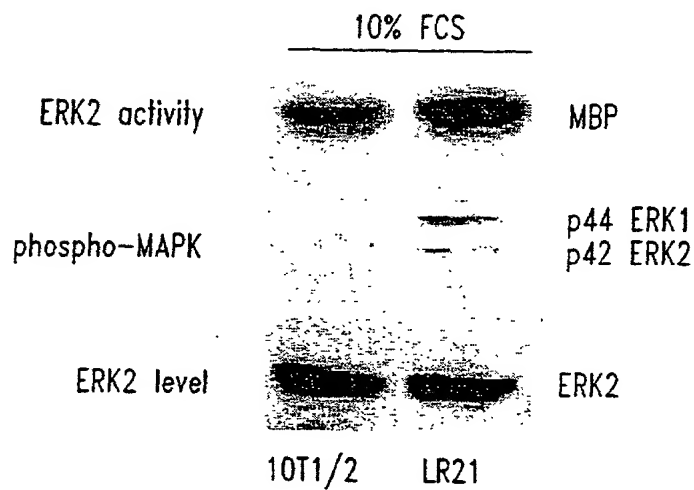


Fig. 6A



Fig. 6B

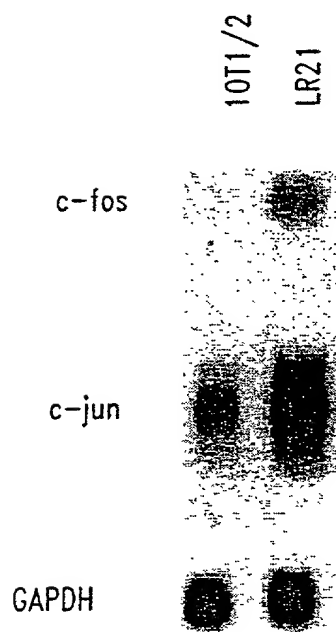


Fig. 7A

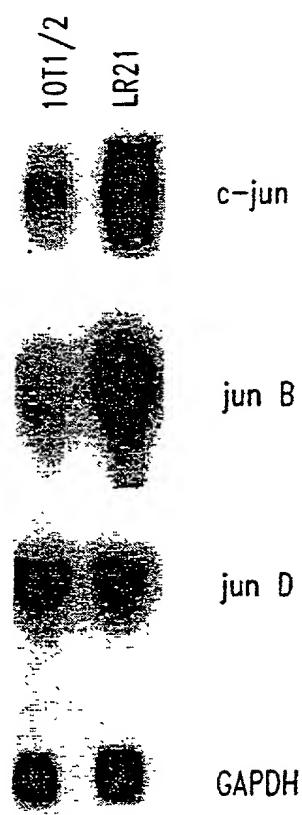


Fig. 7B

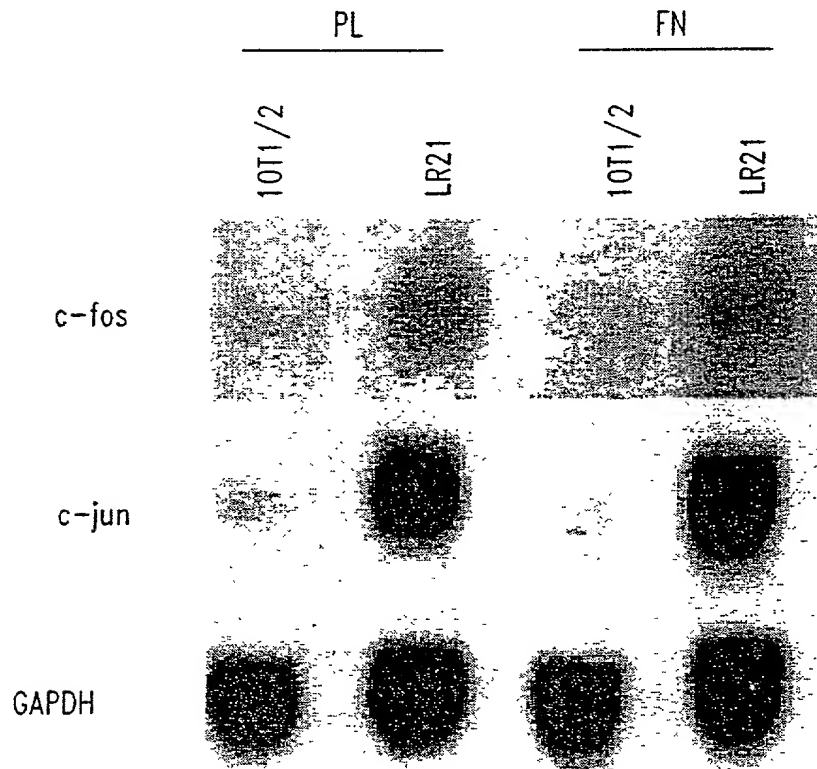


Fig. 8

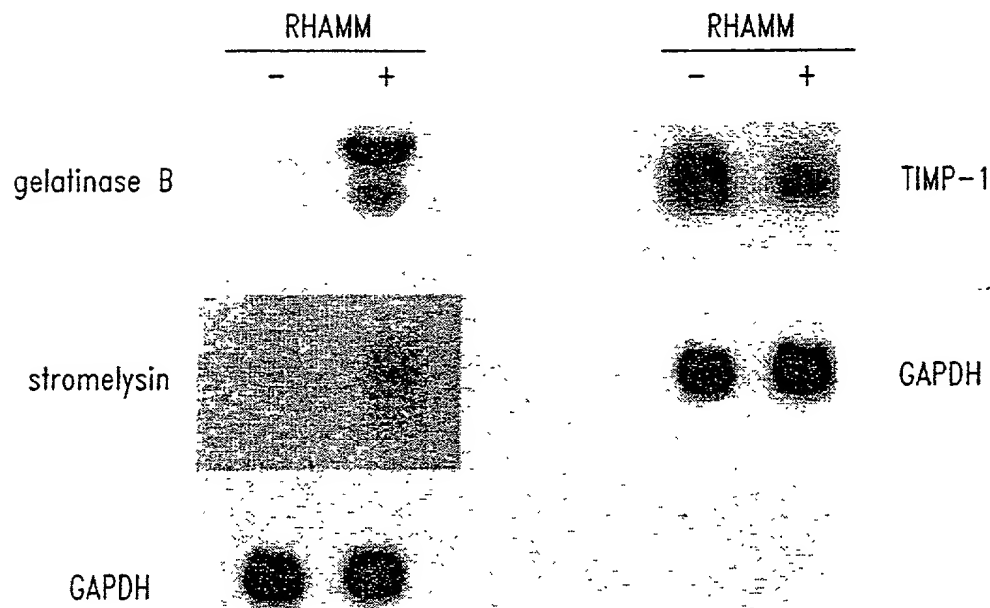


Fig. 9

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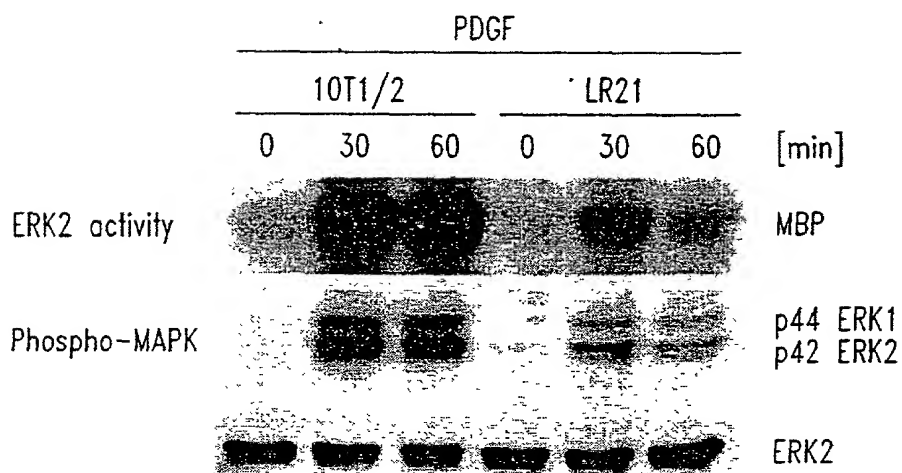


Fig. 10

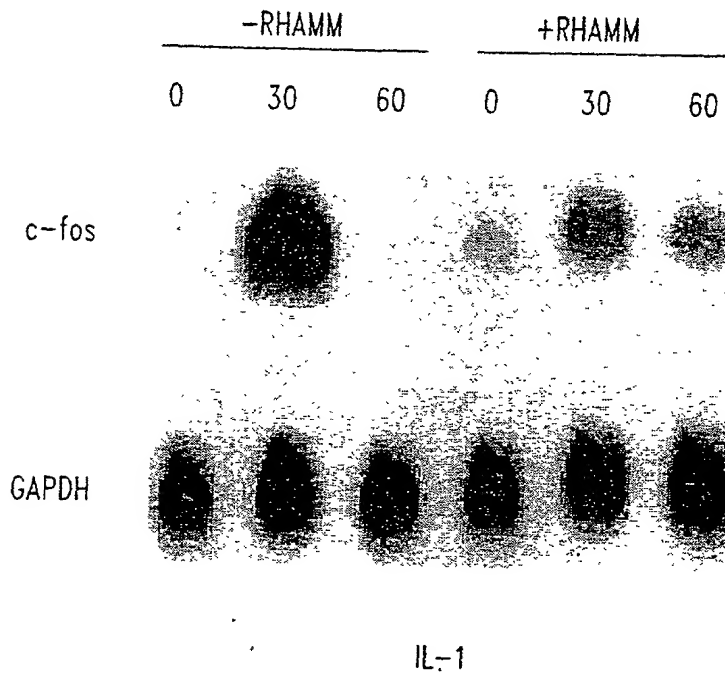


Fig. 11A

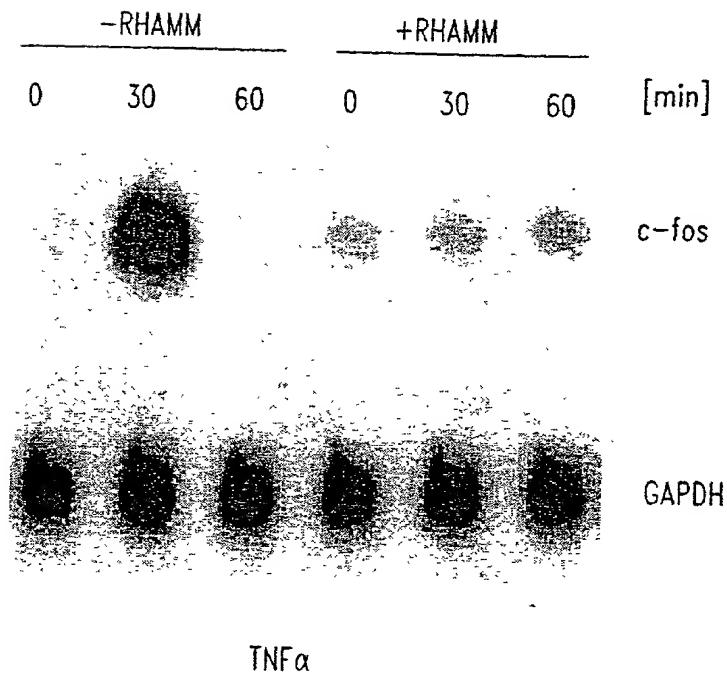
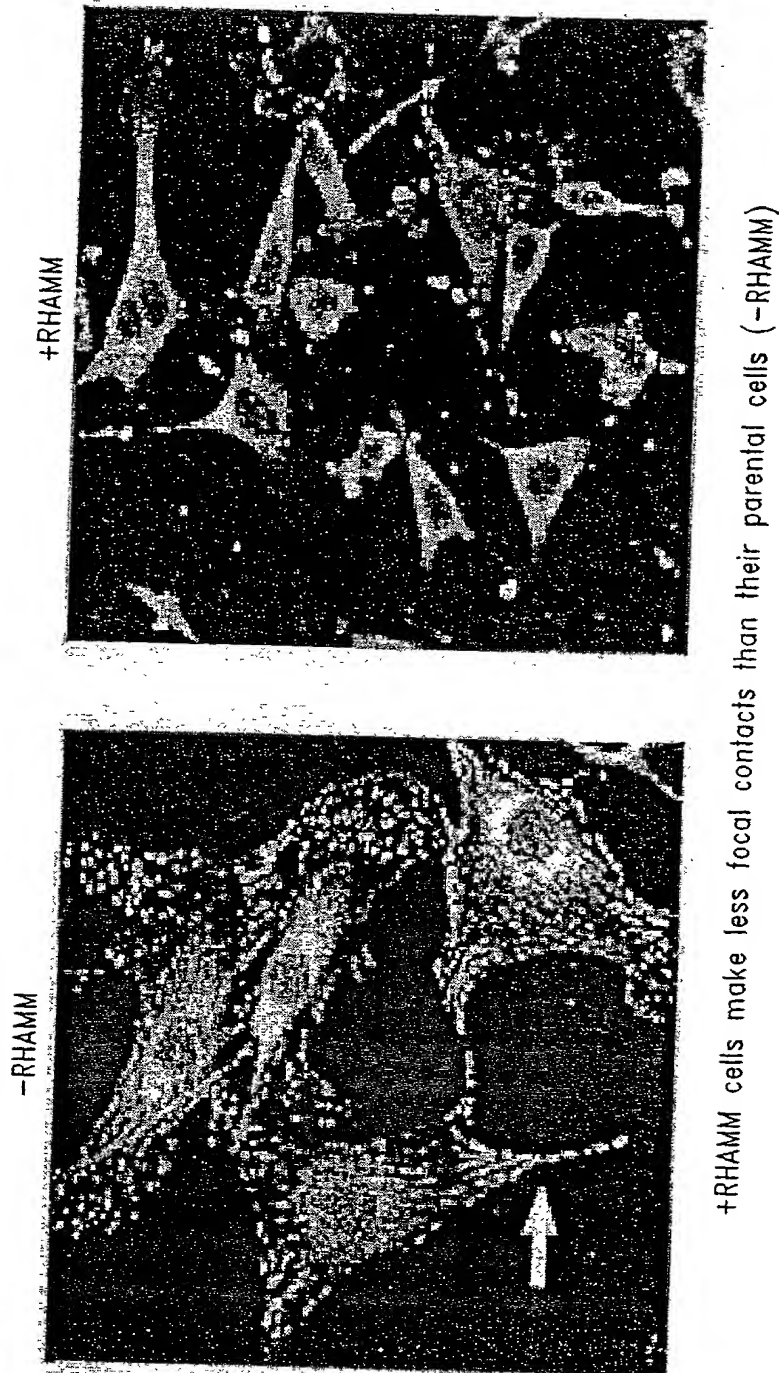
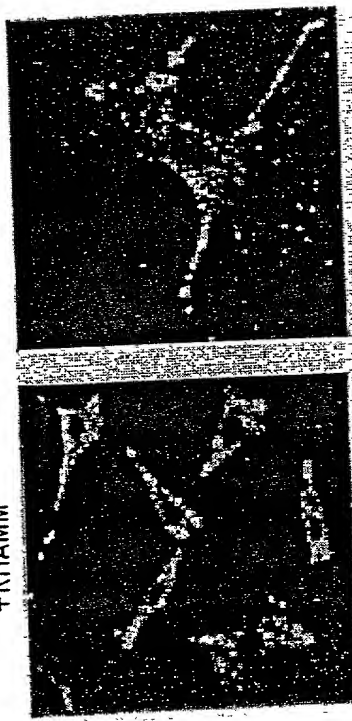


Fig. 11B

FOSTOT 60E2669 10504

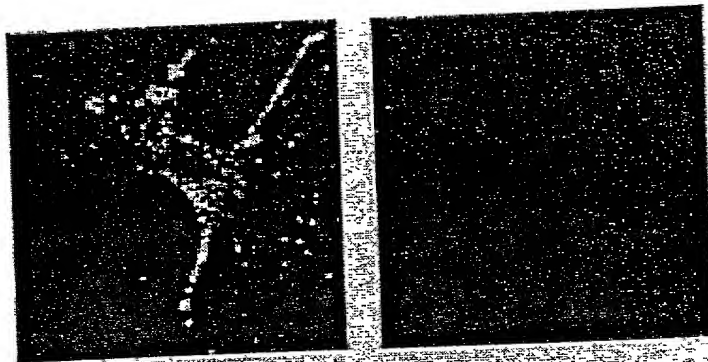


+RHAMM



6 hrs

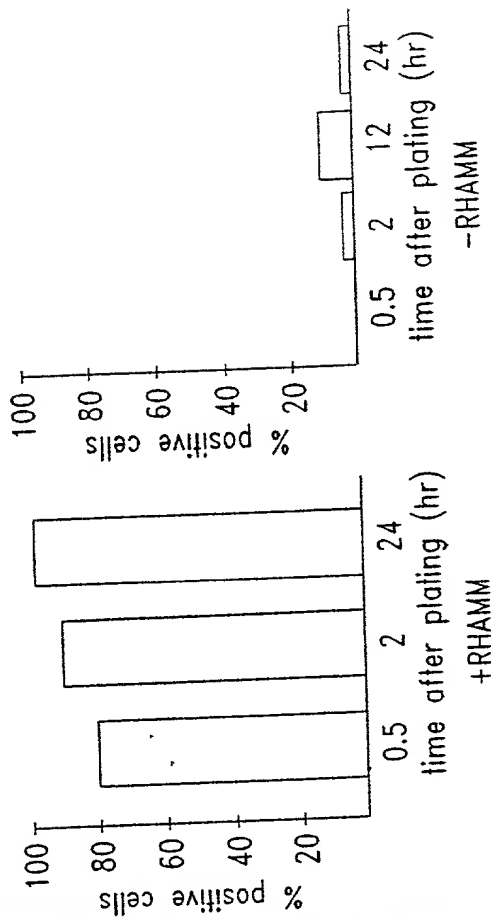
-RHAMM



24 hrs



- Overexpression of RHAMM results in increased and sustained production of podosomes



- In most cells responding to injury, podosomes are formed and disassembled rapidly (-RHAMM, 6 vs. 24 hrs)

Fig. 13

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TITLE: COMPOSITIONS AND METHODS FOR

TREATING CELLULAR RESPONSE TO INJURY AND ...

INVENTOR(S): TONY CRUZ, ET AL.

ATTORNEY DOCKET No.: 033352-010

SHEET 12 of 63

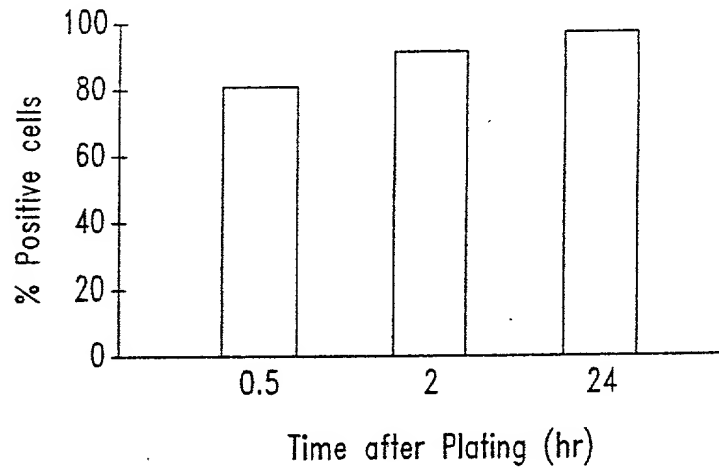


Fig. 14A

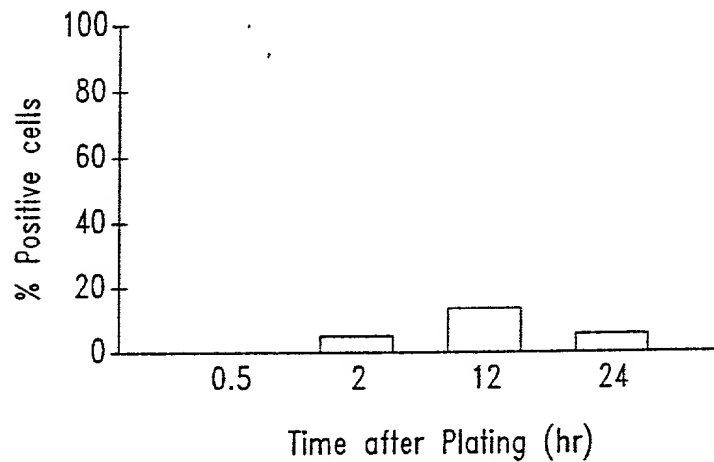


Fig. 14B

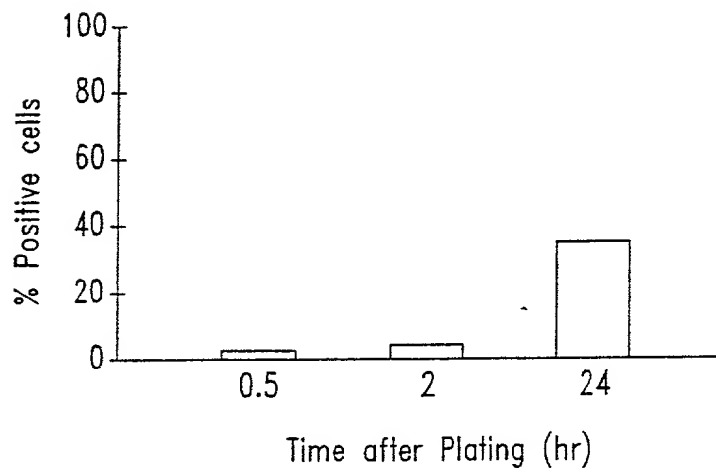


Fig. 14C

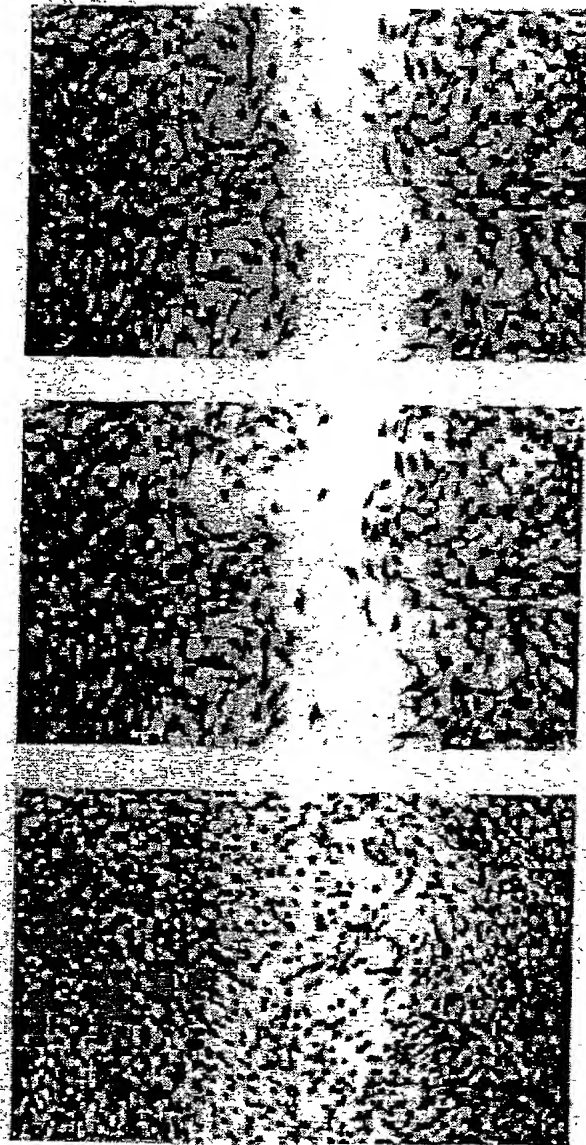


Fig. 14D

Fig. 14E

Fig. 14F

FOOT 60E92650

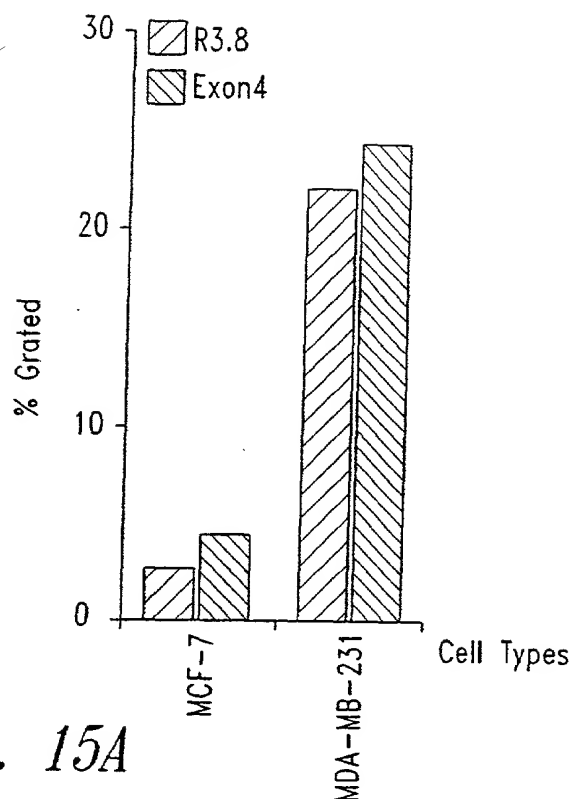


Fig. 15A

RHAMM Peptides

Murine Exon3 sequence:

N-terminal ---KLQATQKDLTESKGKIVQLEGKL--- 23aa

SEQ ID. NO. 14

For Exon3 antibody, used the peptide sequence:

(C) KLQATQKDLTESKG

SEQ ID. NO. 15

Murine Exon4 sequence:

N-terminal ---VSIEKEKIDEKCETEKLLEYIQEIS--- 25aa

SEQ ID. NO. 16

For Exon4 antibody, used the peptide sequence:

(C) VSIEKEKIDEKC/S

SEQ ID. NO. 17

For antibody to Human RHAMM v5, used the peptide sequence:

(C) LKSKFSENGNQKNL

SEQ ID. NO. 18

Homology between three peptides from murine (M) and human (H) RHAMM (as used to raise antibody)

1) Exon3	M:	KLQATQKDLTESKG	as in SEQ ID. NO. 15
	H:	---V--RS-E-Q--	SEQ ID. NO. 19
2) Exon4	M:	VSIEKEKIDEKC	as in SEQ ID. NO. 17
	H:	-----S	as in SEQ ID. NO. 17
3) v5	M:	--A----D-H---M	SEQ ID. NO. 20
	H:	LKSKFSENGNQKNL	as in SEQ ID. NO. 18

Fig. 15B

peptide 1

peptide 2

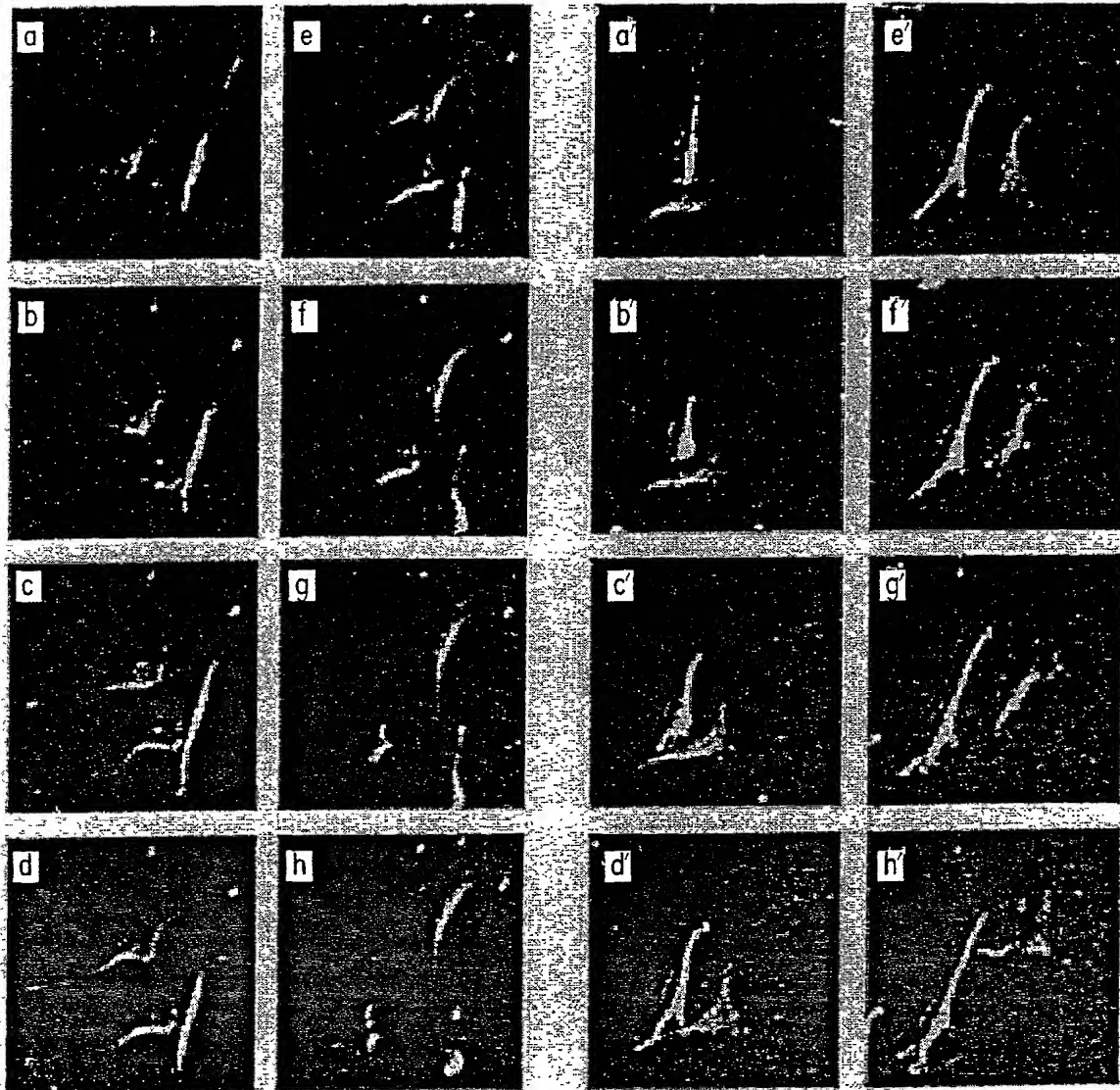


Fig. 16A

Fig. 16B

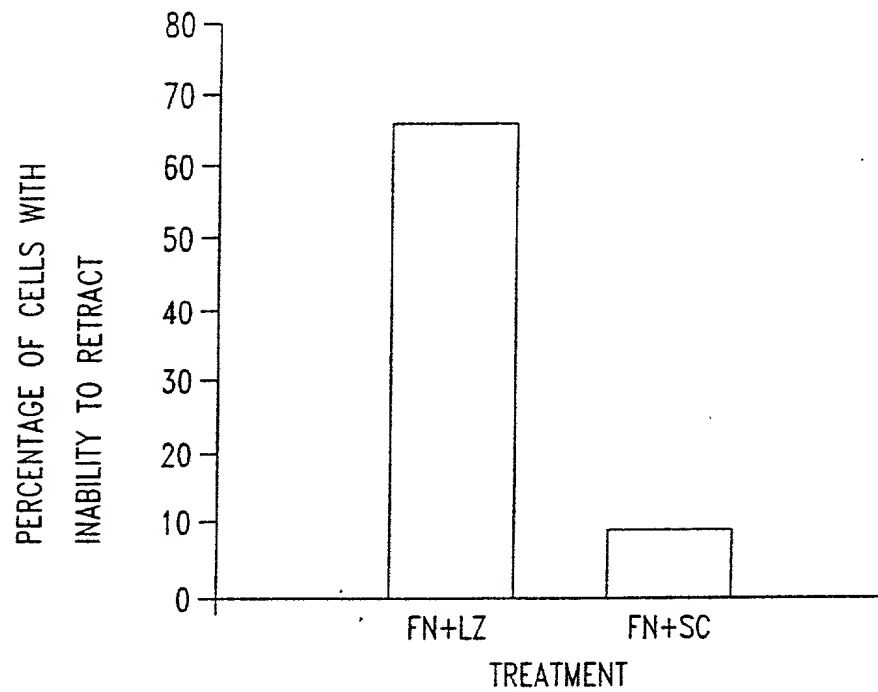


Fig. 16C

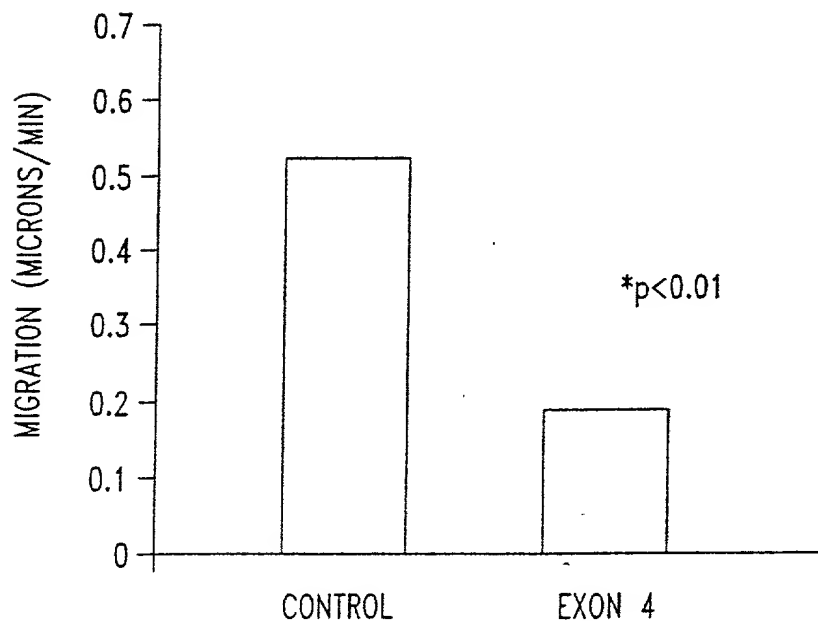


Fig. 16D

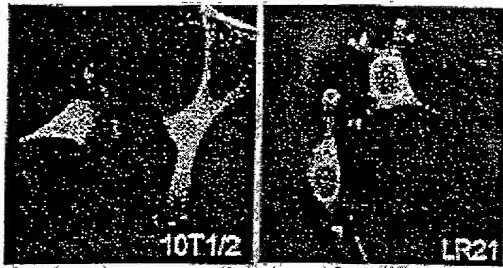


Fig. 17A

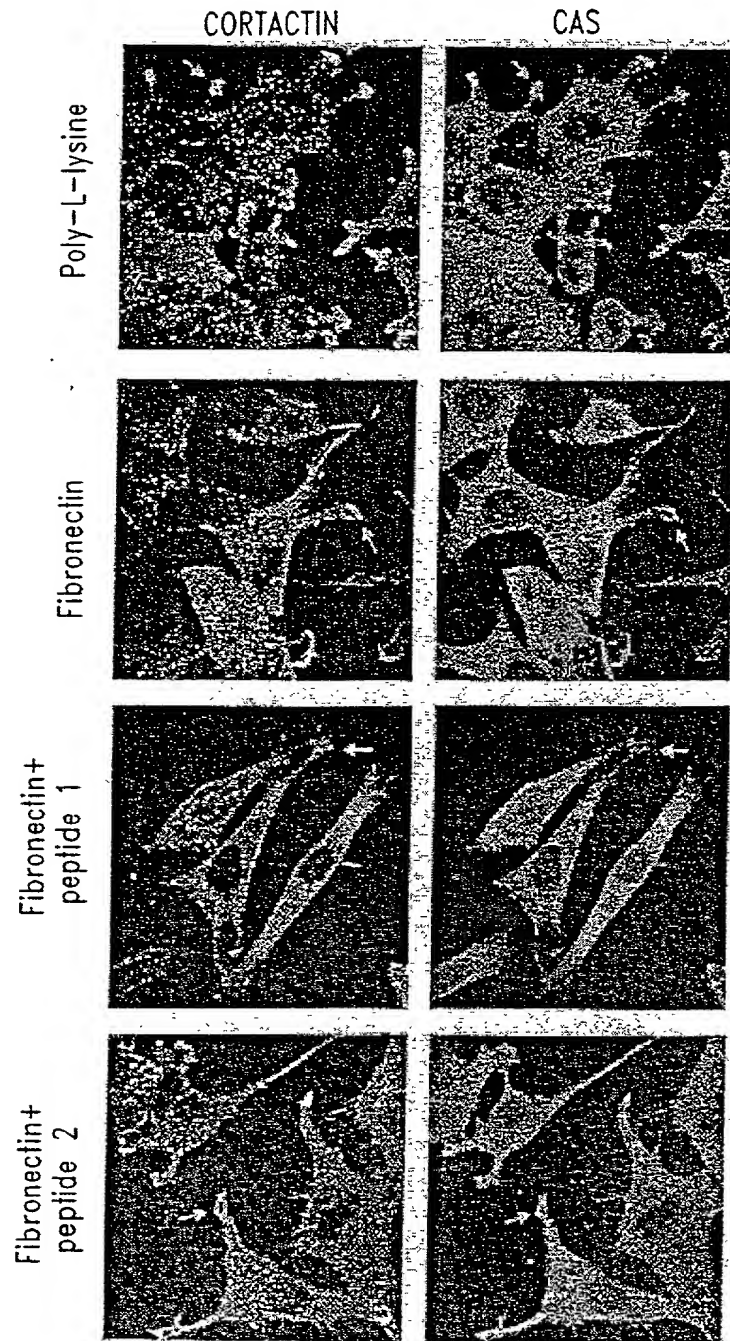


Fig. 17B

FIG. 17A

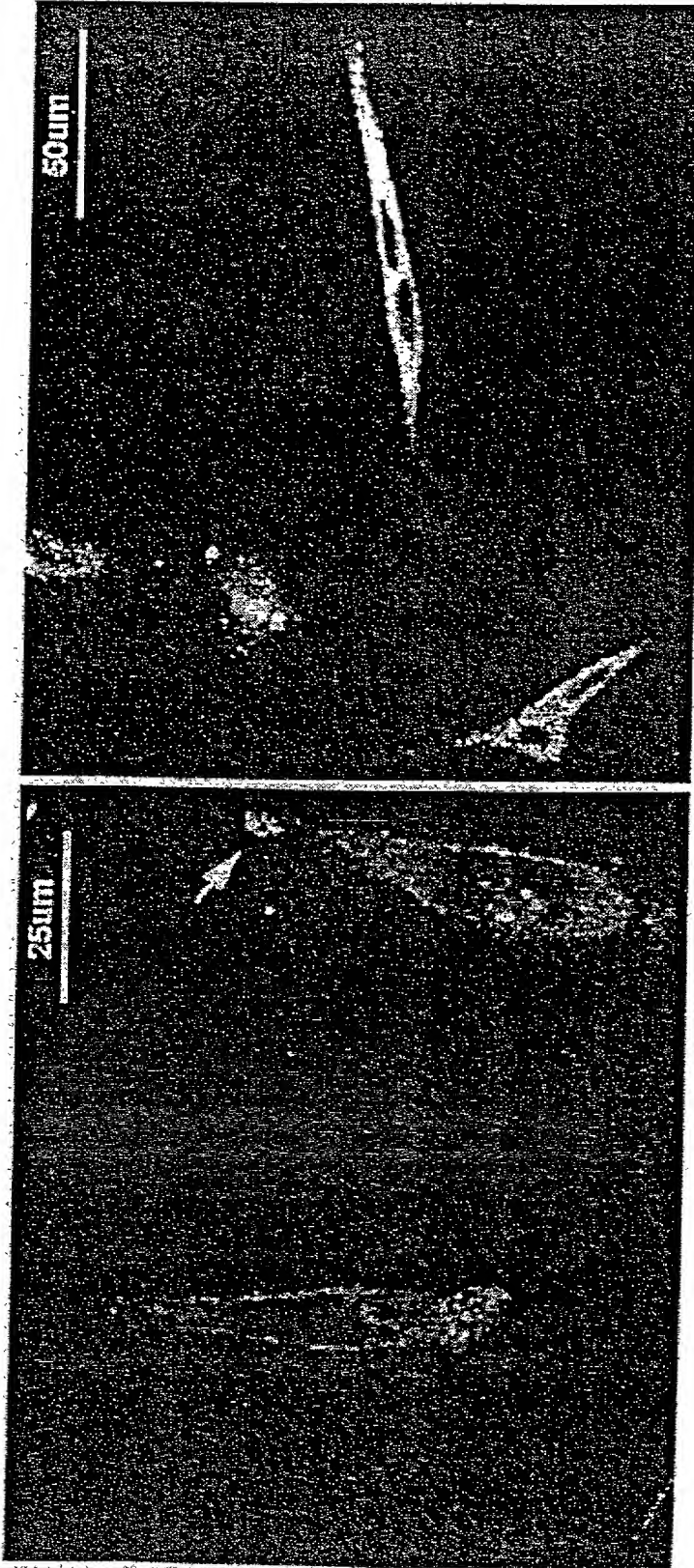


Fig. 18

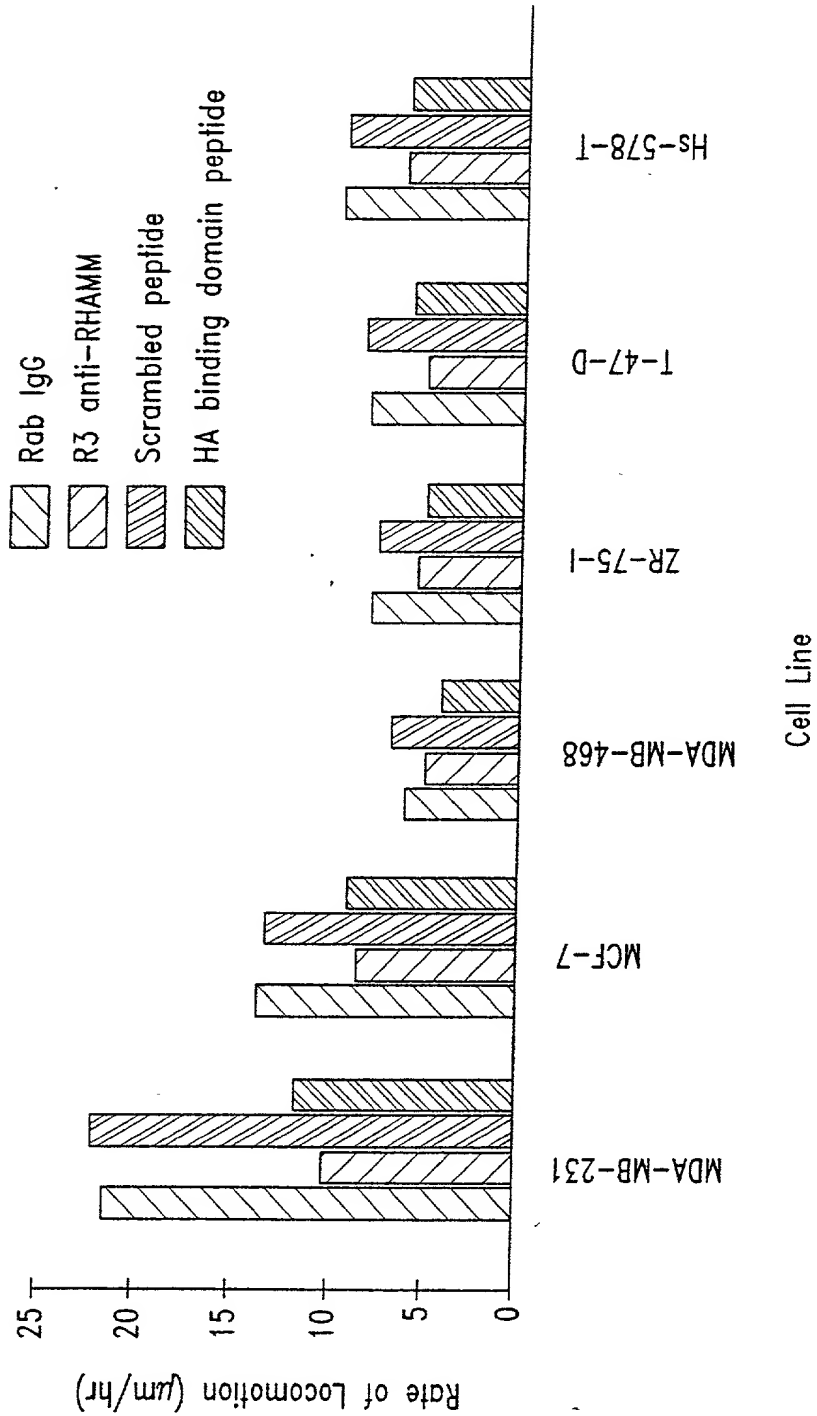


Fig. 19

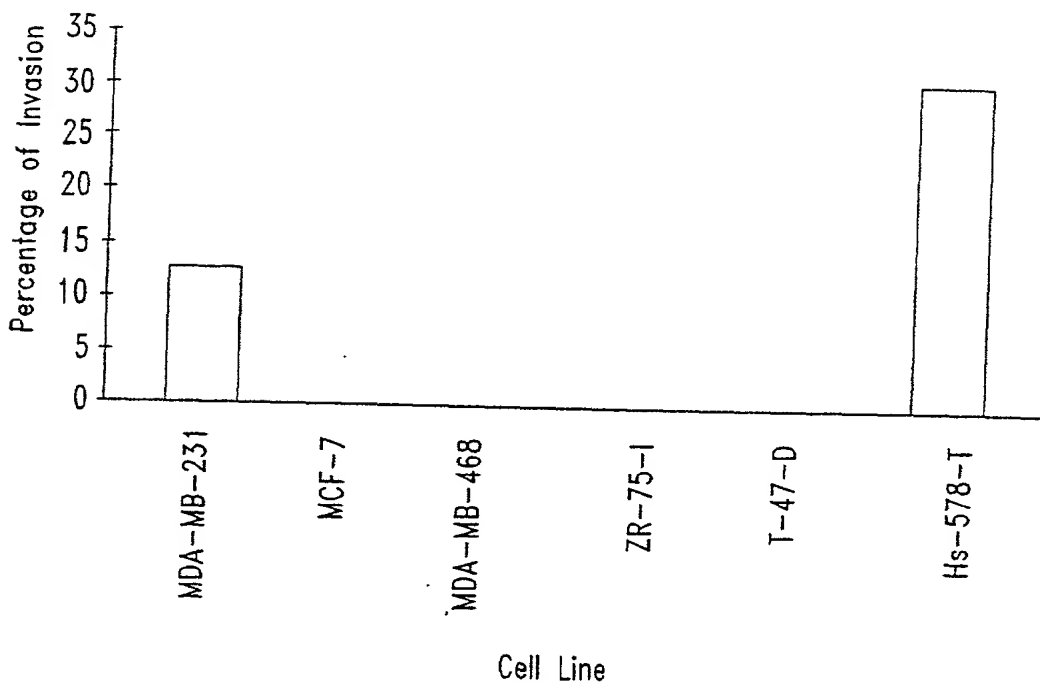


Fig. 20A

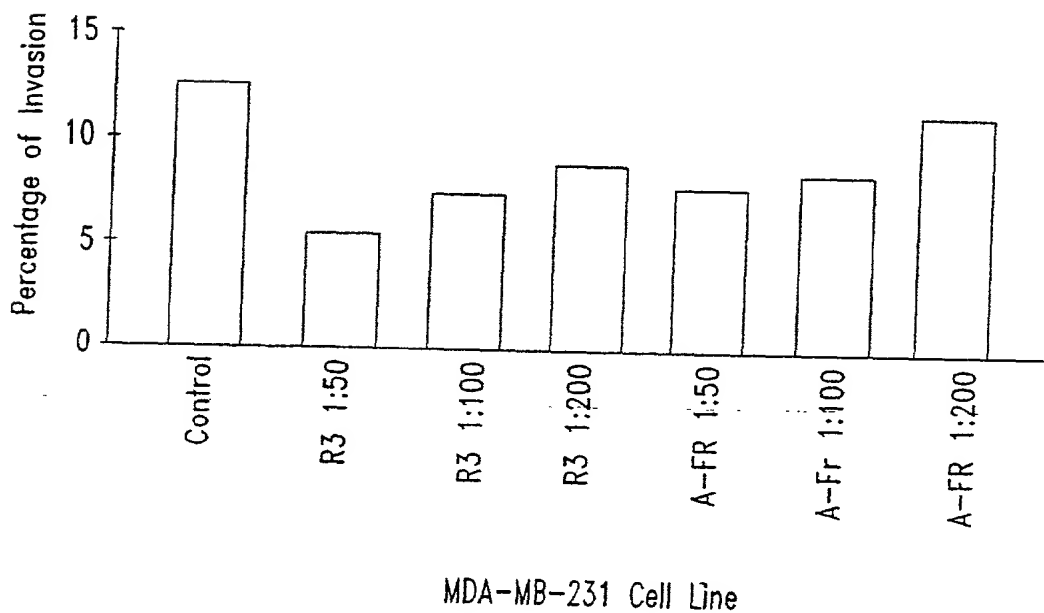


Fig. 20B

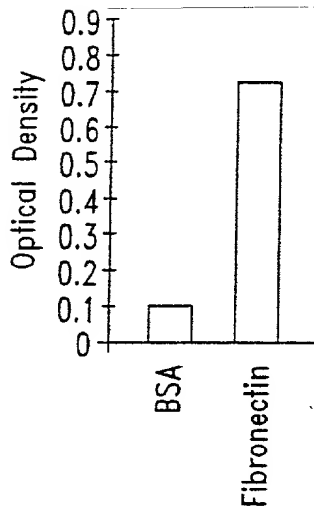


Fig. 21A

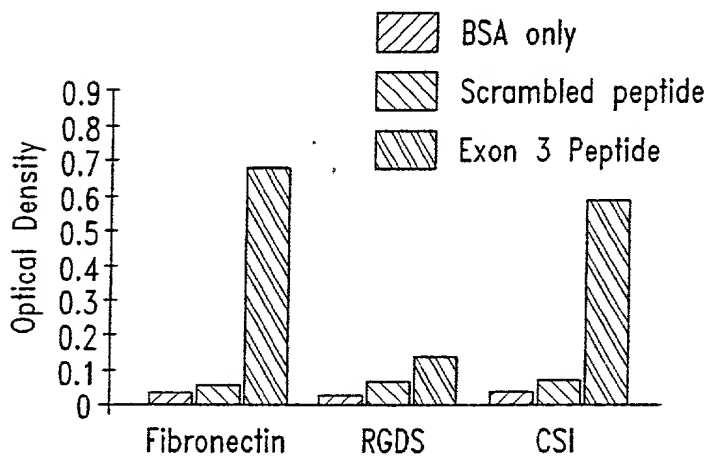


Fig. 21B

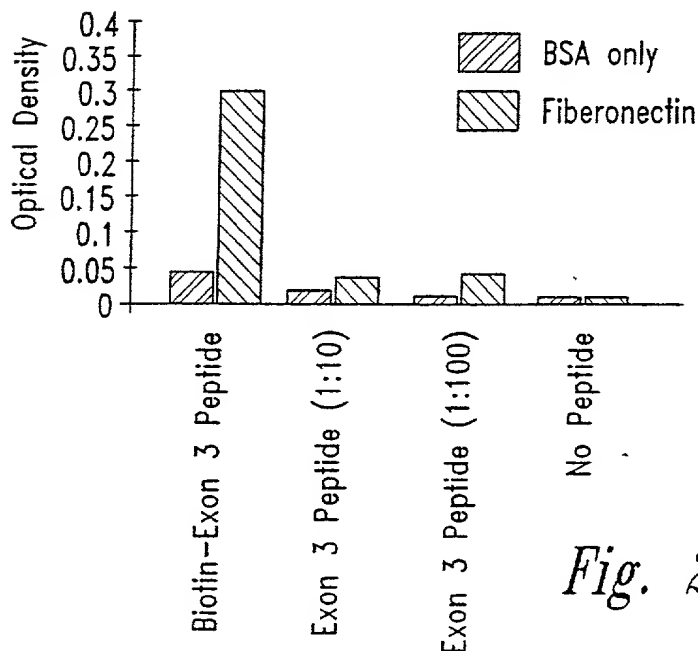


Fig. 21C

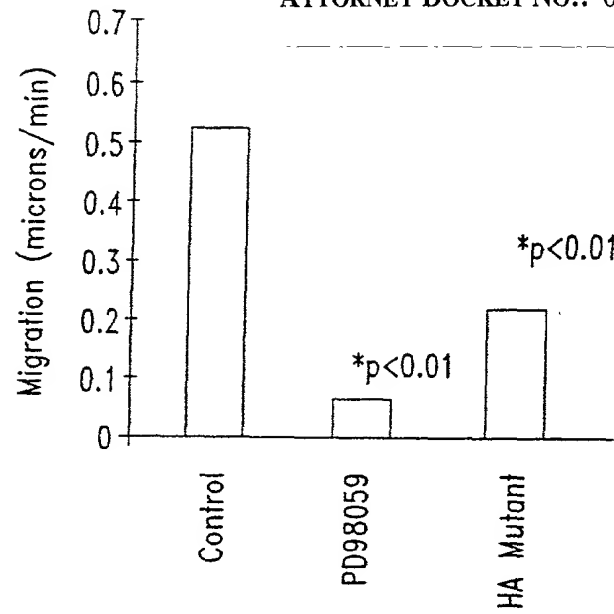
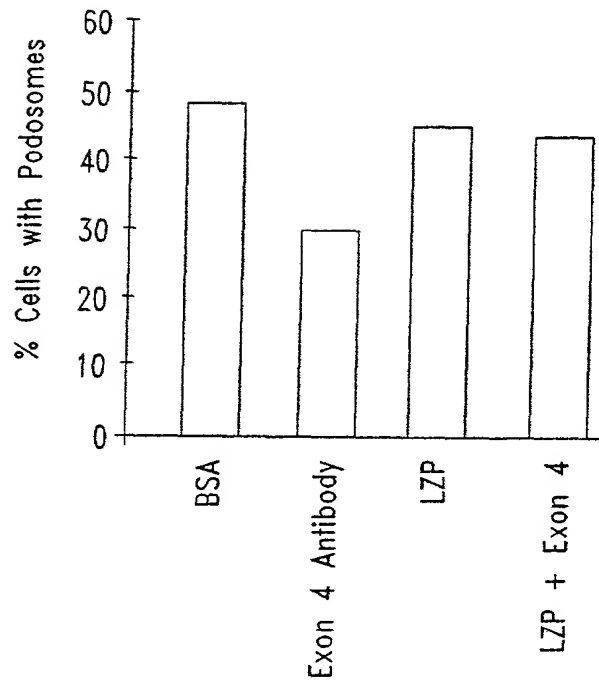


Fig. 22



Effects of Exon4 Antibody and LYP
on the Podosome Formation of LR21

Fig. 24A

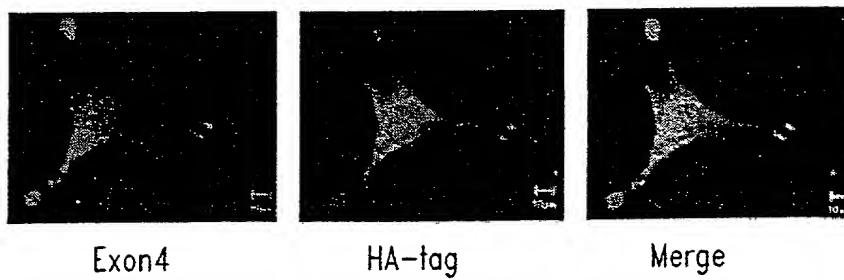


Fig. 23A

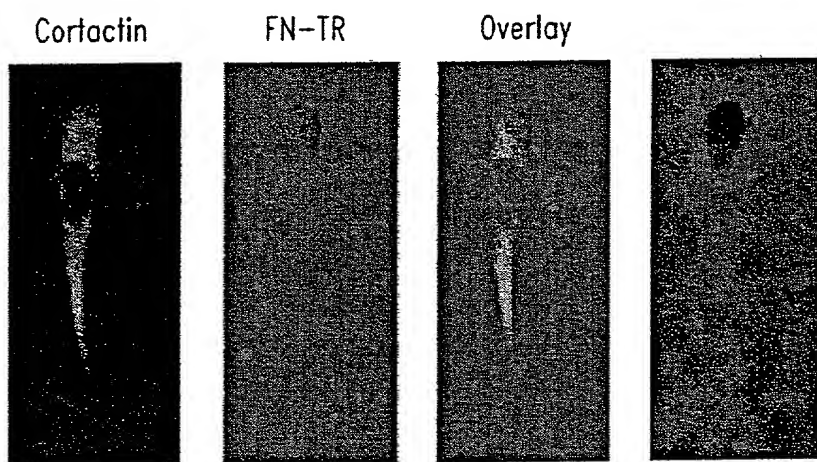


Fig. 23B

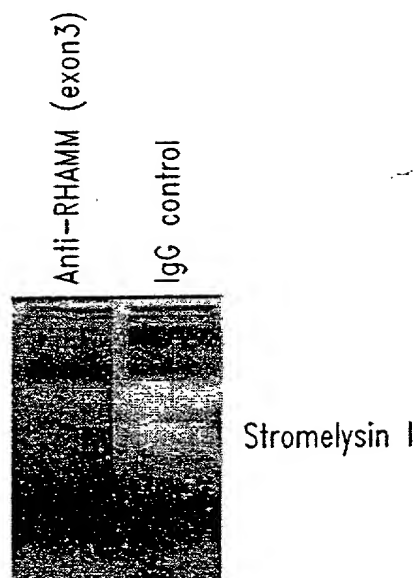


Fig. 24B

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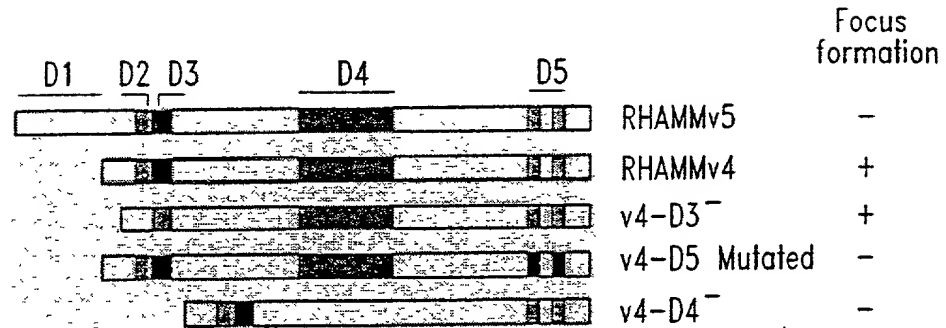


Fig. 25A

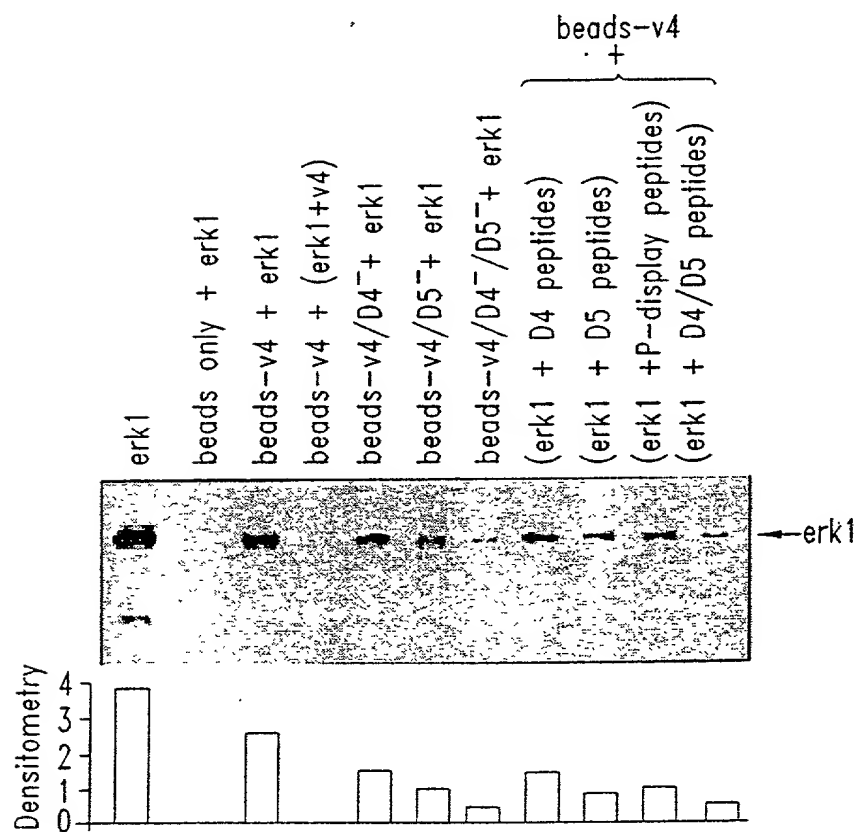


Fig. 25B

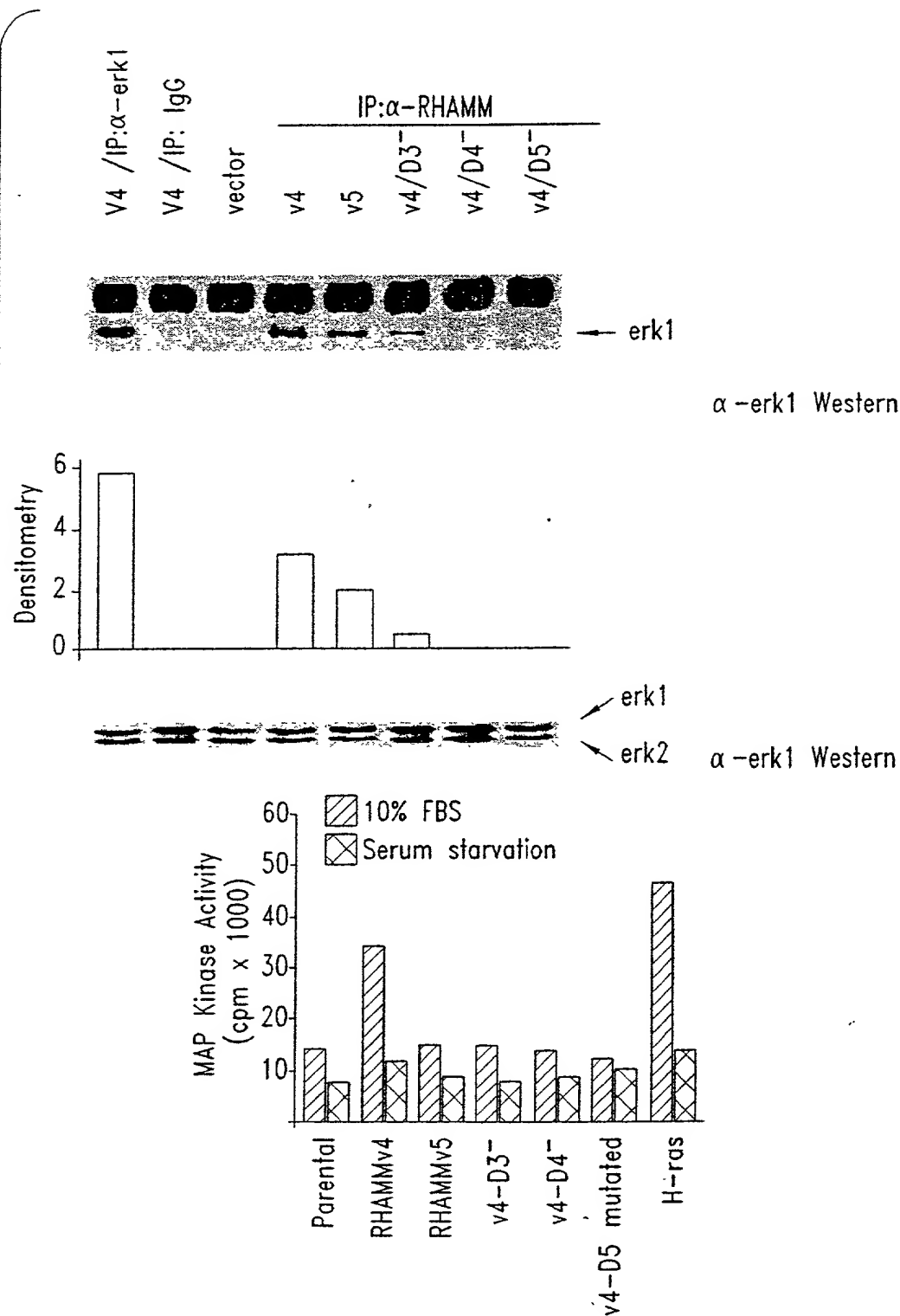


Fig. 25C

A: RGGGRGRRR
 B: RGGGRGGRR
 C: RGGGRGGGR
 D: RGGGGGGGR

Fig. 26A

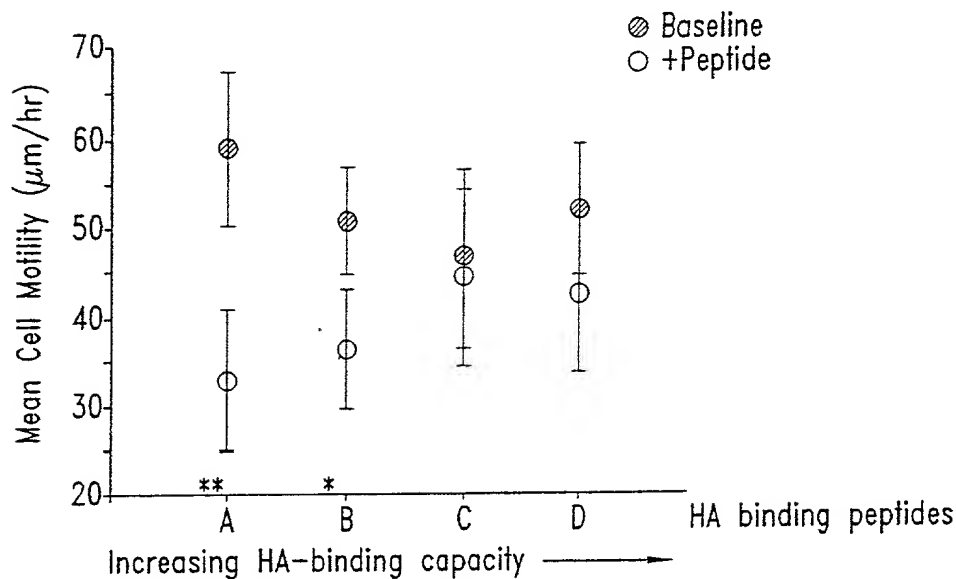


Fig. 26B

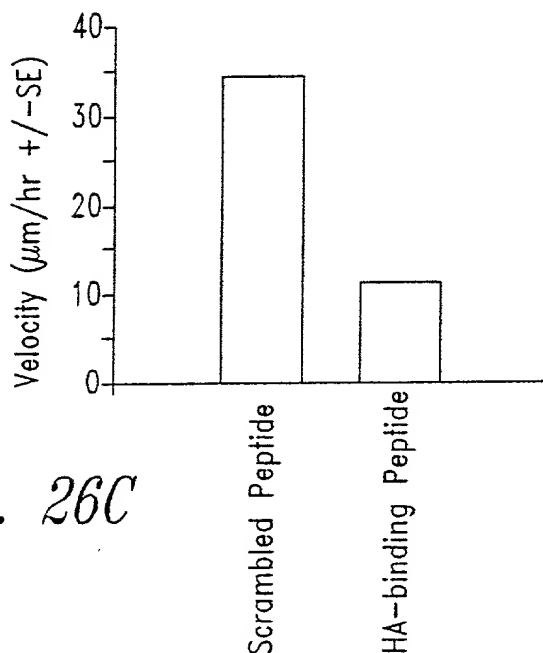


Fig. 26C

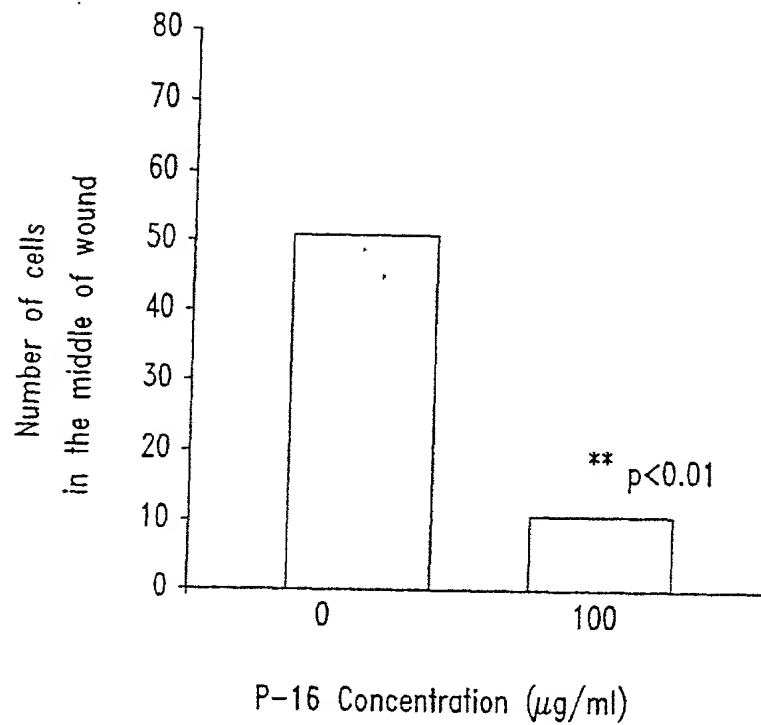


Fig. 27

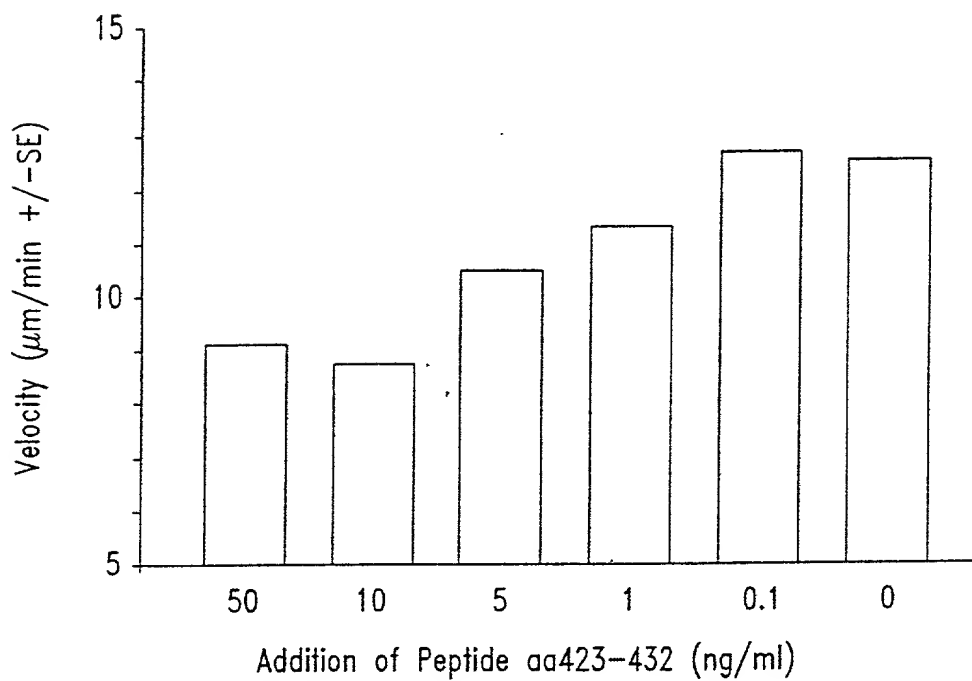


Fig. 28

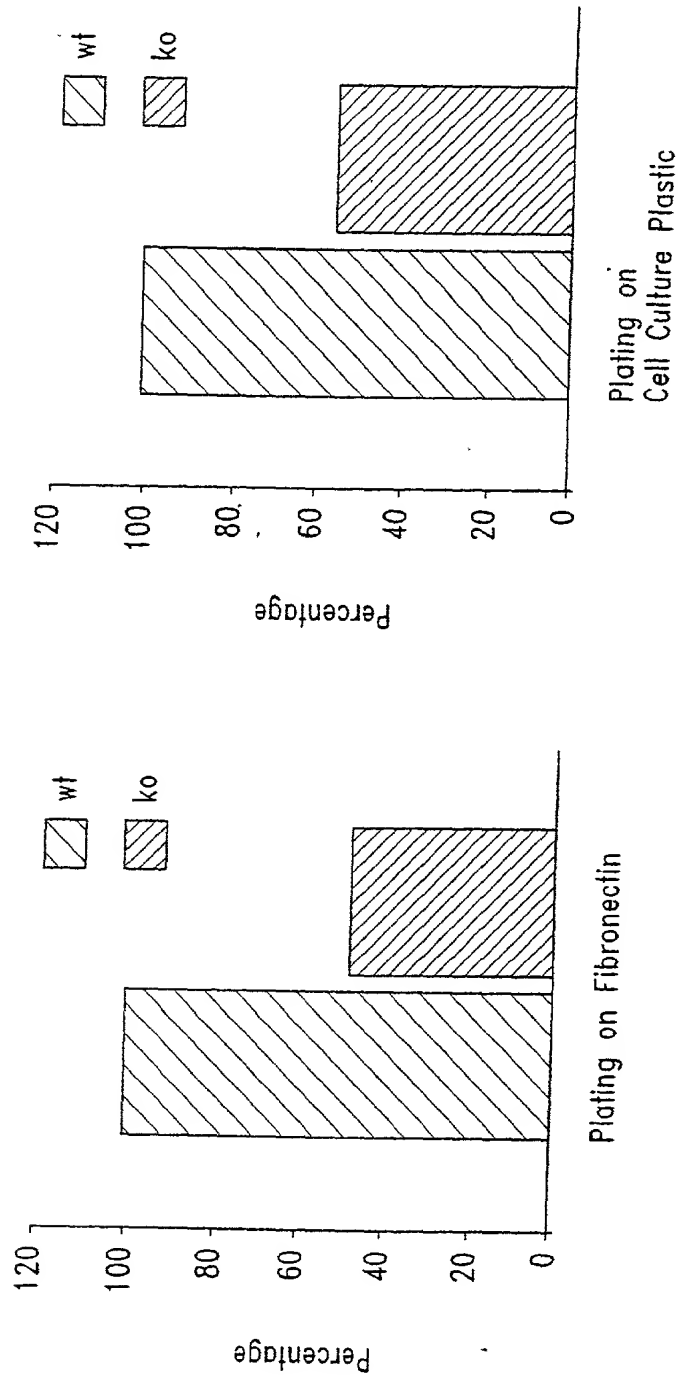


Fig. 29

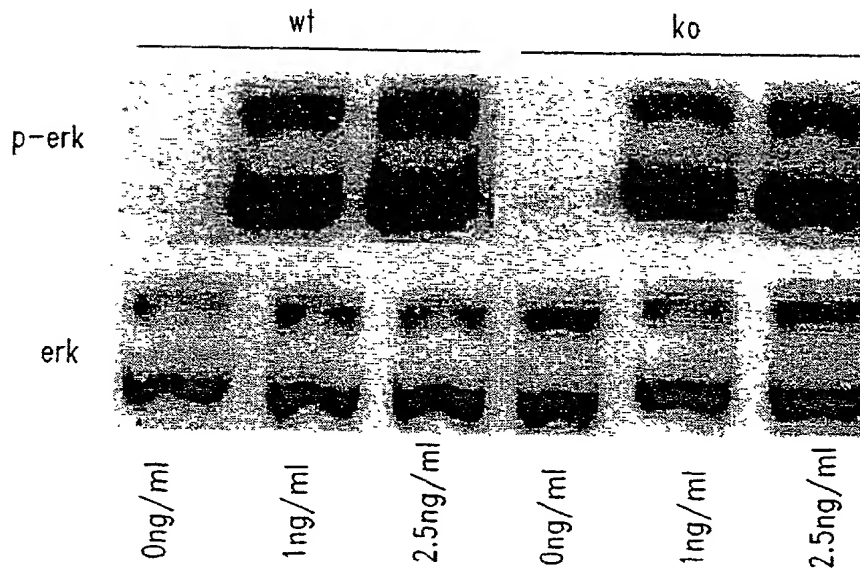
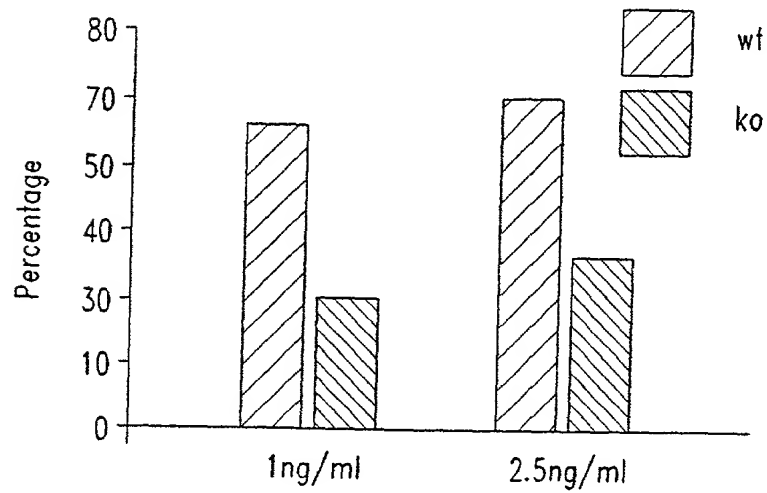


Fig. 30

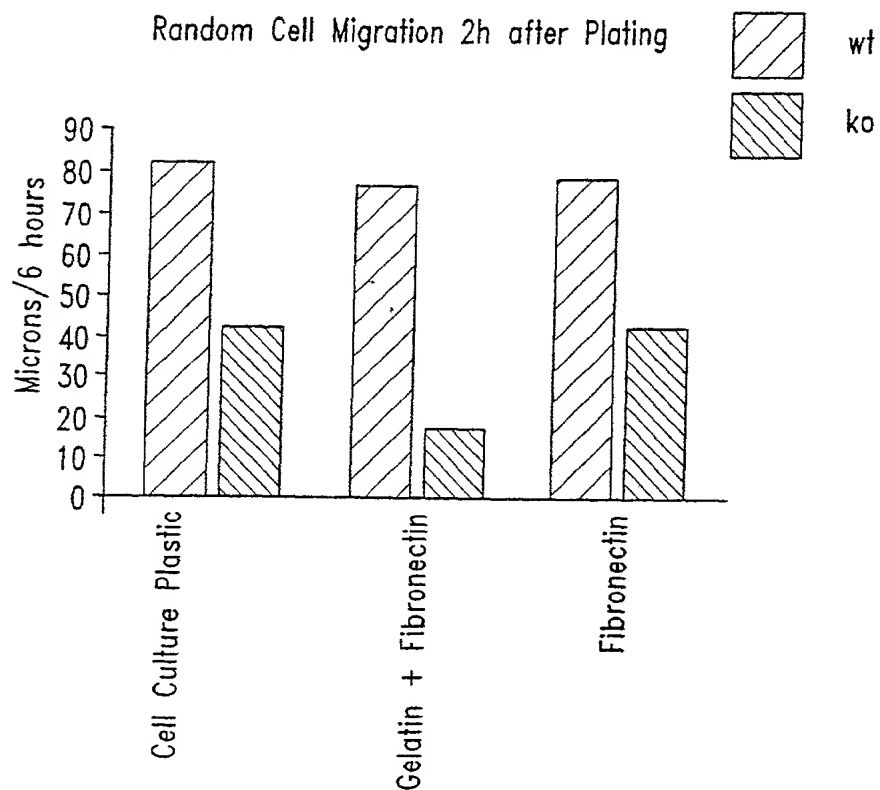


Fig. 31

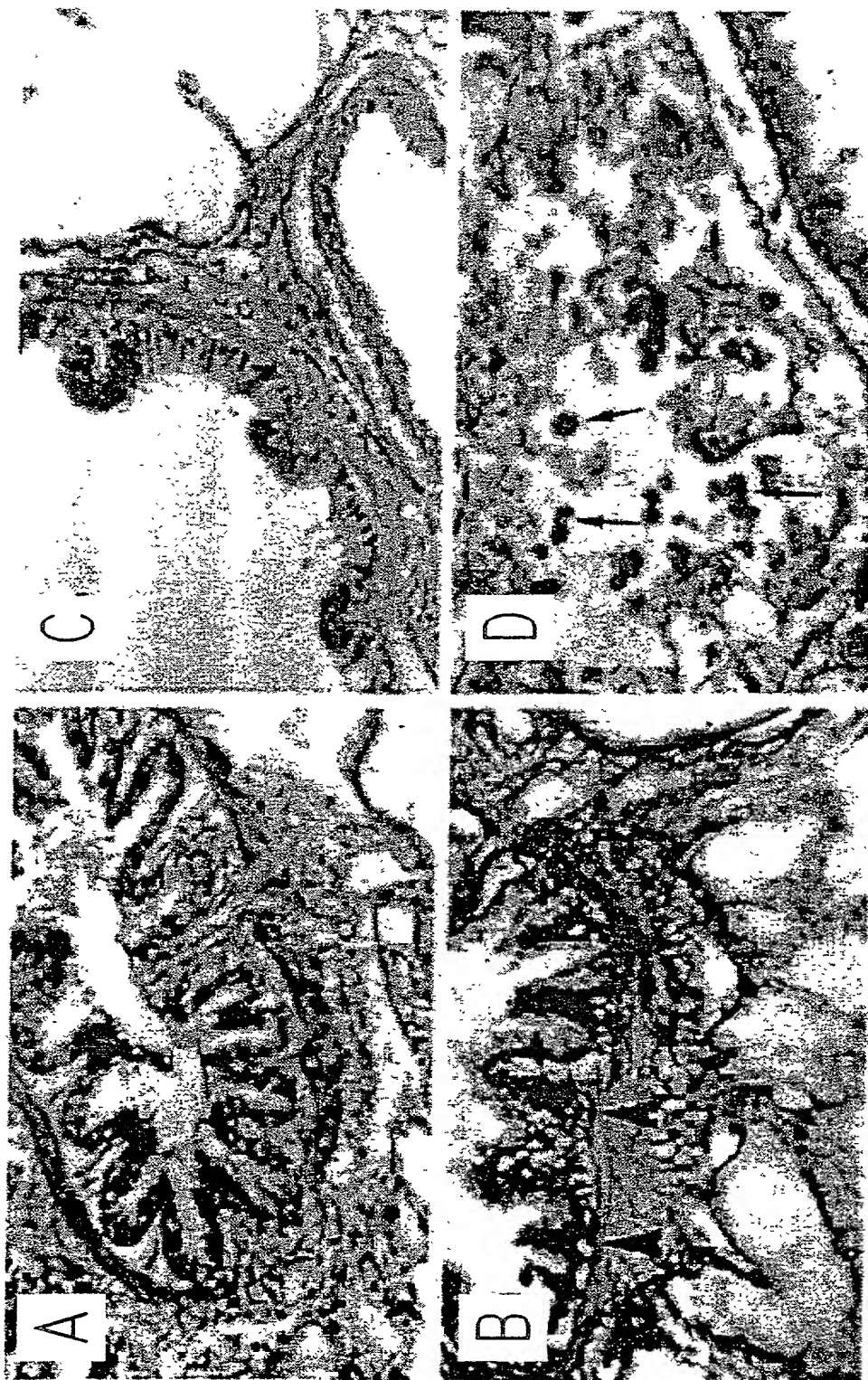


Fig. 32

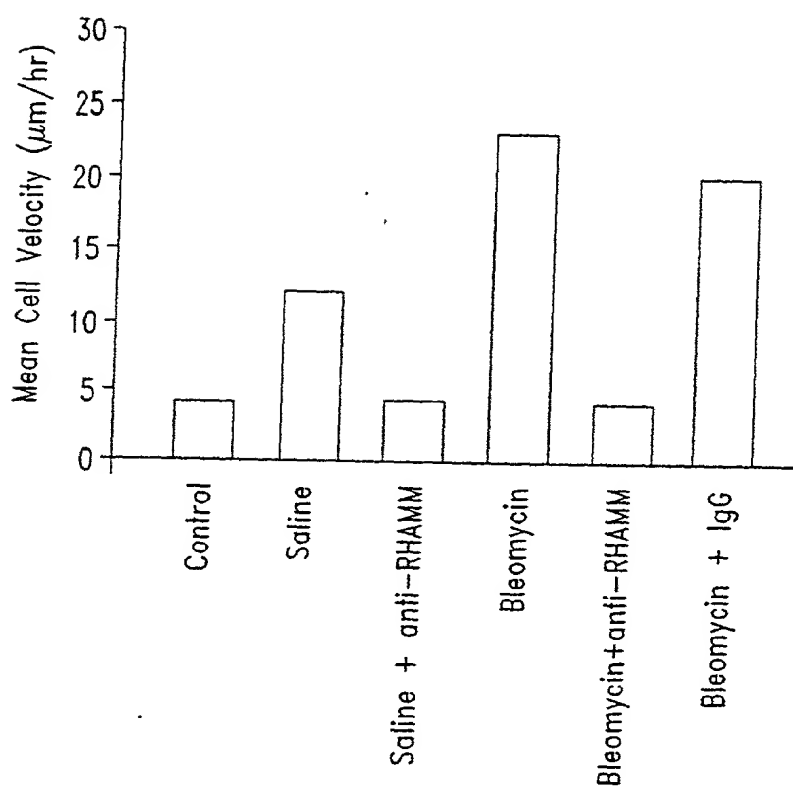


Fig. 33

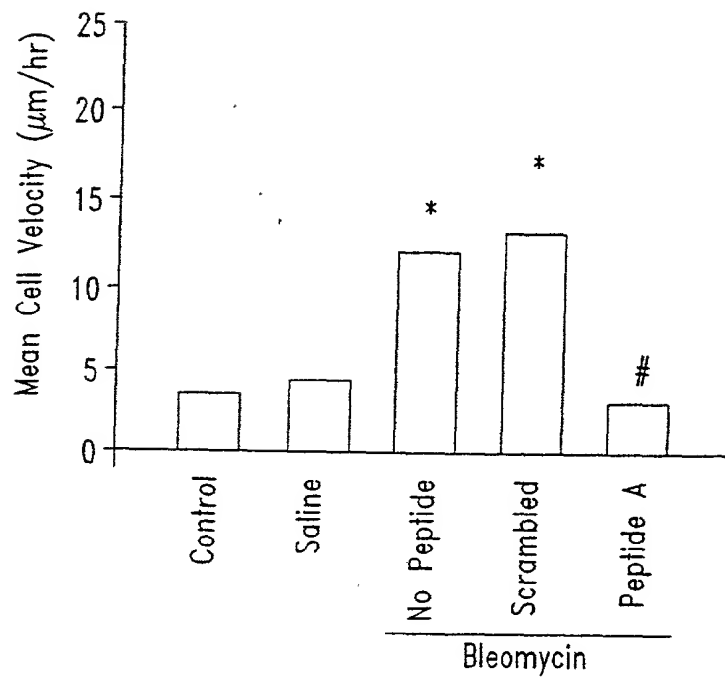


Fig. 34

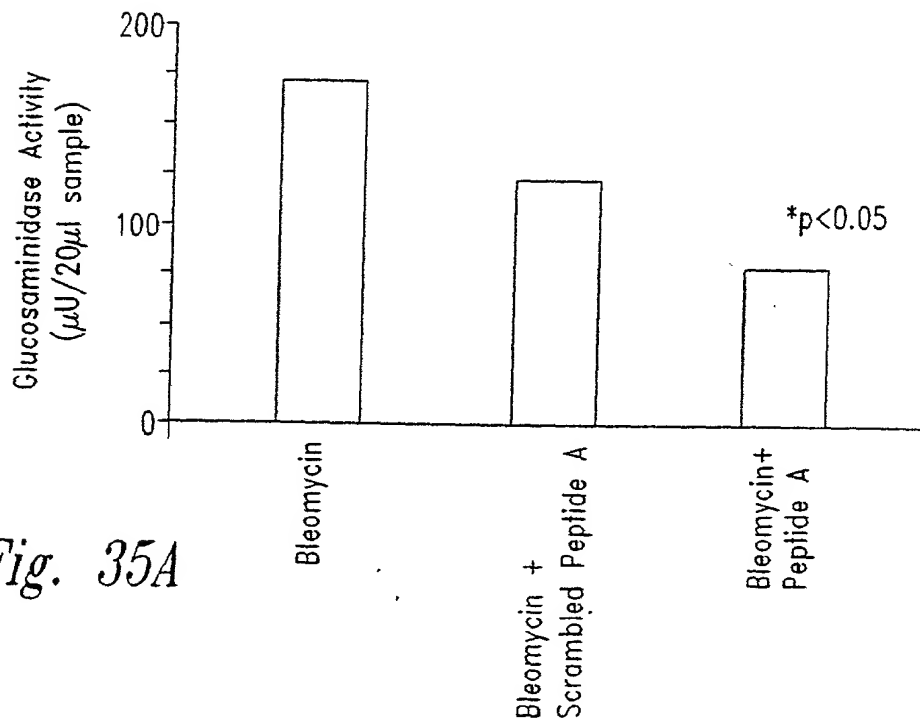


Fig. 35A

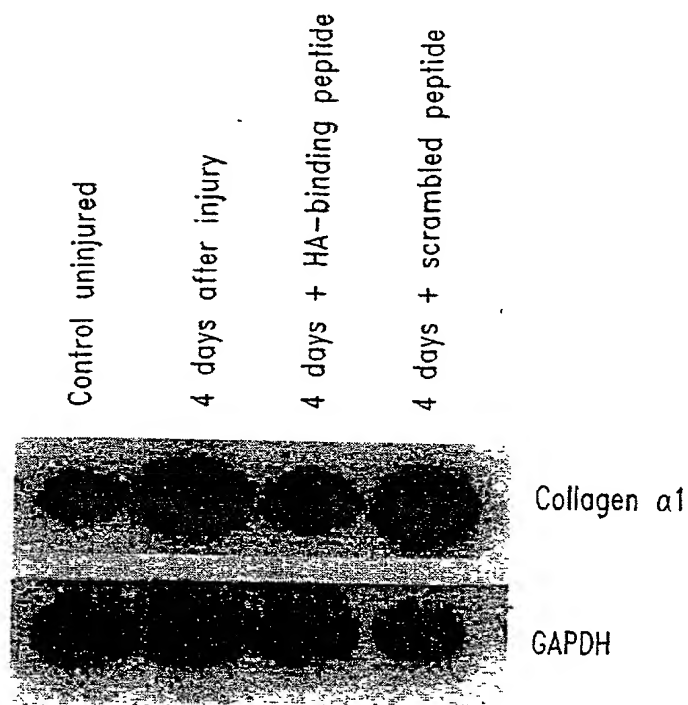


Fig. 35B

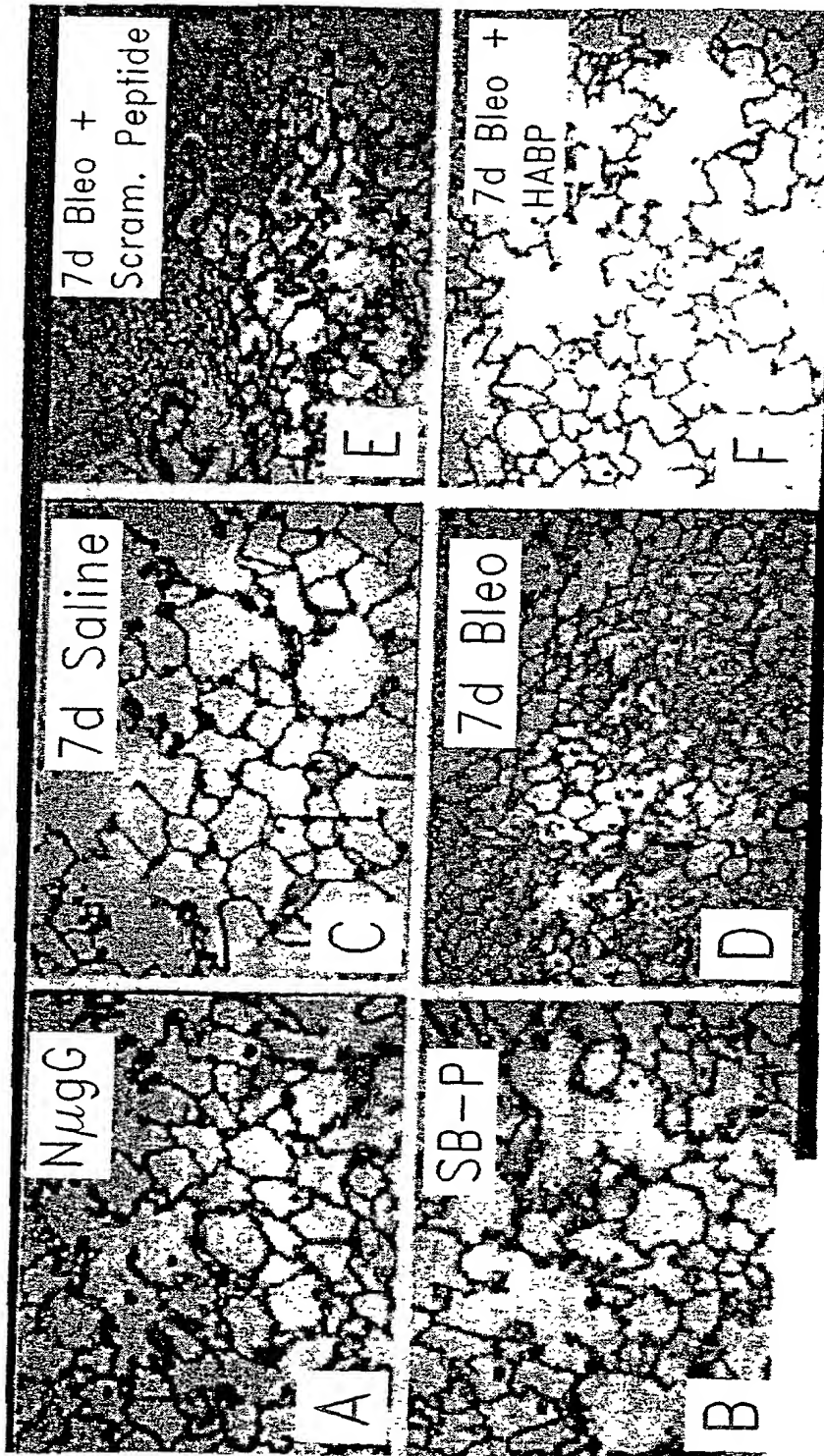


Fig. 36

Patient	% of total X4+ cells	% of total V5+ cells	Neutrophils		Monocytes/macrophages			T cells		
			% of total cells	% of X4+ cells	% of V5+ cells	% of total cells	% of X4+ cells	% of V5+ cells	% of total cells	% of X4+ cells
W.H.	ND	50.7	70.5	81.2	ND	21.8	87.1	66.4	6.7	11.7
M.T.	74.6	20.7	80.7	ND	9.9	11.2	89.6	ND	9.0	<2.0
L.S.	43.9	34.4	ND	ND	ND	8.5	ND	53.8	20.4	5.3
S.M.	67.6	4.0	67.3	80.9	ND	ND	ND	ND	3.0	10.0
M.M.	19.2	19.6	25.2	68.3	ND	ND	ND	ND	2.7	4.5
D.D.	35.7	31.2	40.7	99.3	ND	ND	ND	ND	6.9	<2.0
P.B. (r)	77.4	71.8	ND	ND	ND	9.2	99.8	88.3	4.4	13.0
P.B. (l)	85.0	82.3	ND	ND	ND	12.8	99.4	58.3	3.4	11.0
S.L.	51.6	45.5	61.7	92.1	77.2	8.8	73.4	85.6	24.0	6.0
R.C.	10.6	6.7	54.1	63.8	13.8	5.6	50.3	43.9	6.3	8.5
N.N.	27.9	10.3	44.1	54.6	21.4	3.5	77.1	49.4	6.8	33.1
M.G.	85.48	84.63	86.7	99.6	99.5	5.52	98.7	98.9	6.36	4.8

- ND - non-determined
- (r) - right knee
- (l) - left knee

Fig. 37

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 TITLE: COMPOSITIONS AND METHODS FOR
 TREATING CELLULAR RESPONSE TO INJURY AND ...
 INVENTOR(S): TONY CRUZ, ET AL.
 ATTORNEY DOCKET NO.: 033352-010

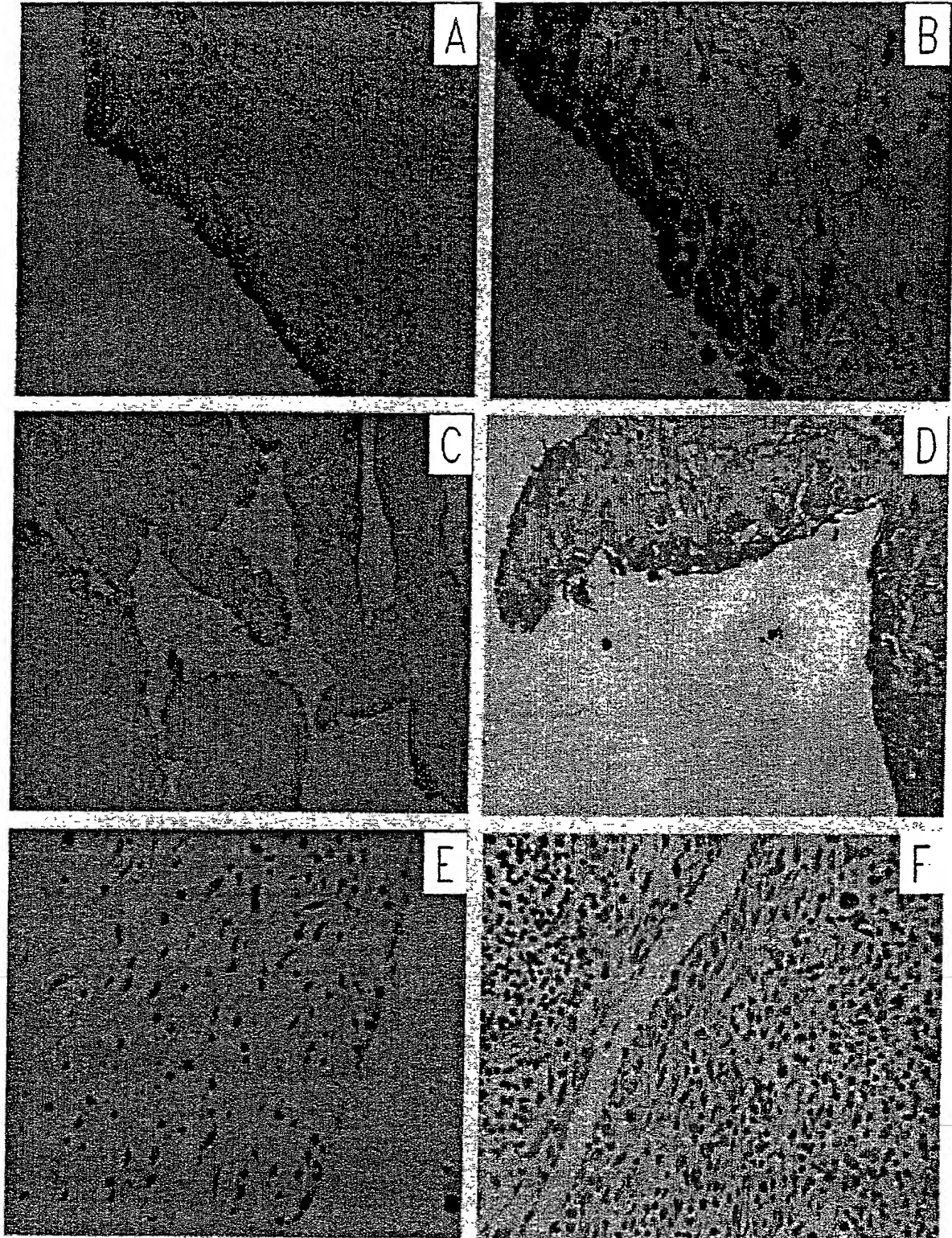


Fig. 38

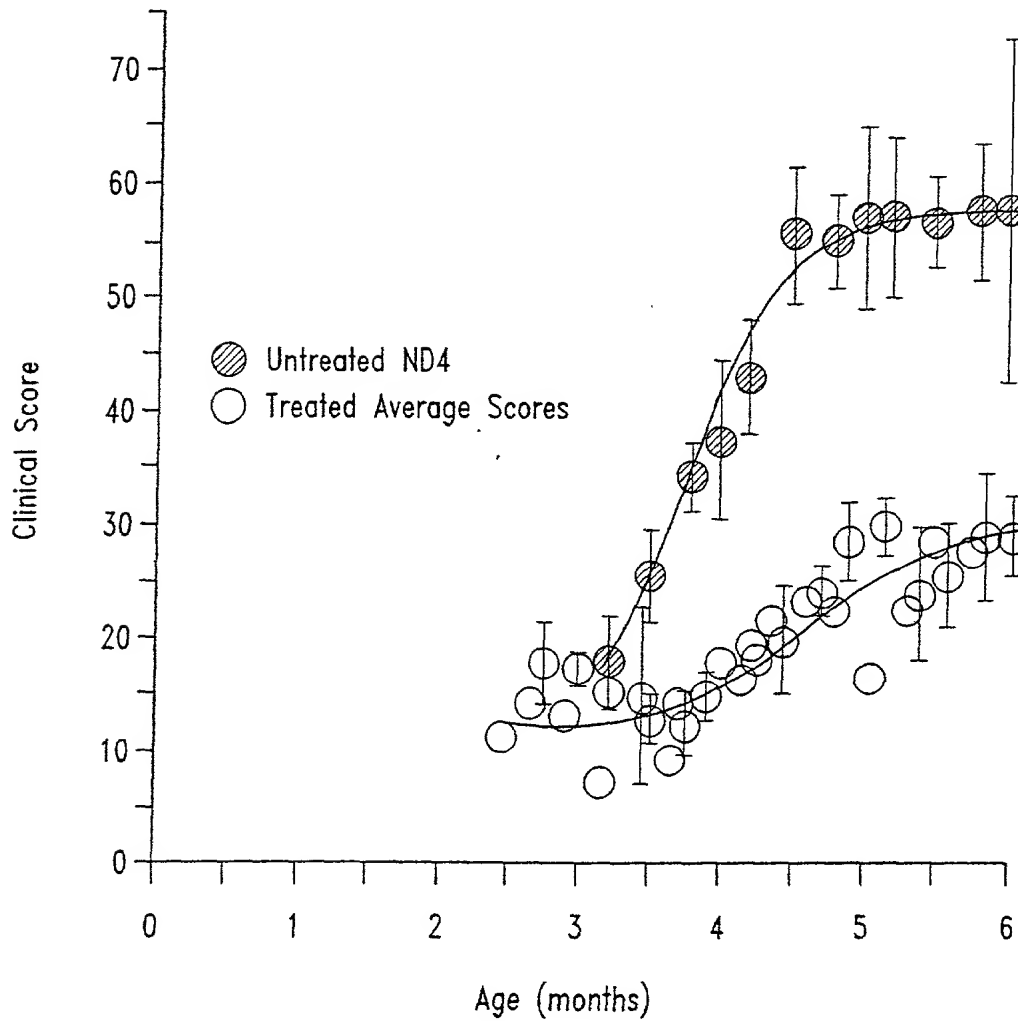


Fig. 39

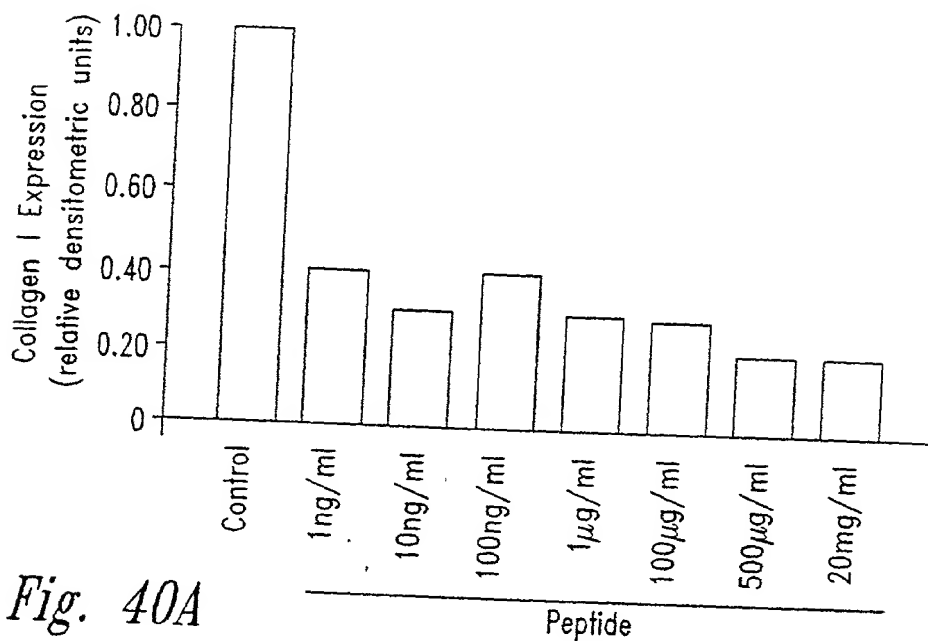


Fig. 40A

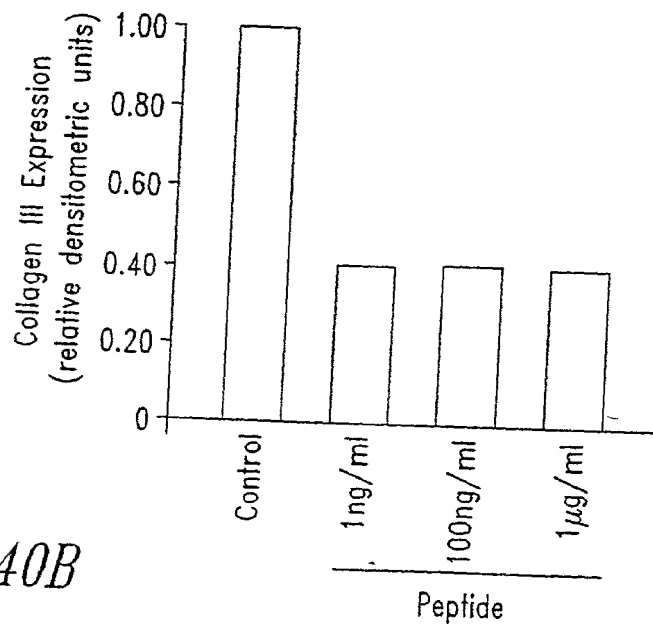


Fig. 40B

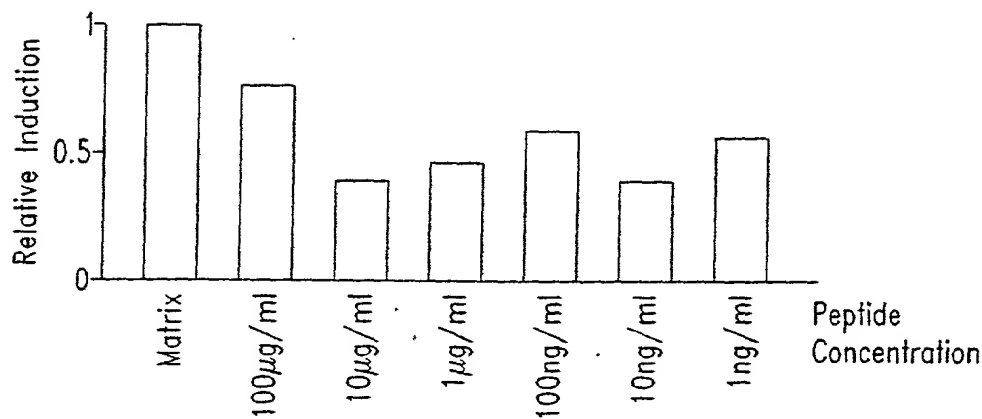


Fig. 41

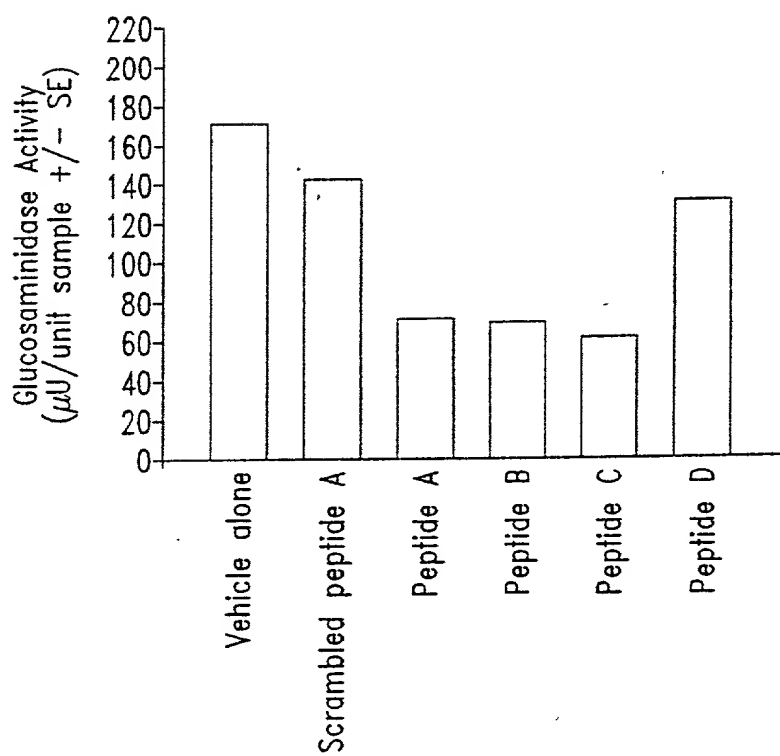


Fig. 42

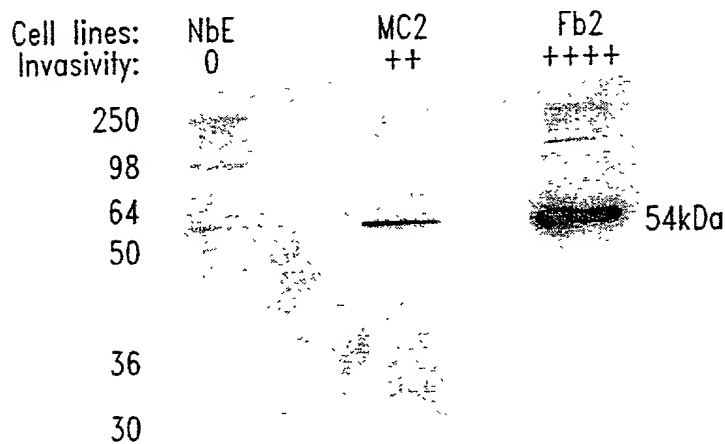


Fig. 43A

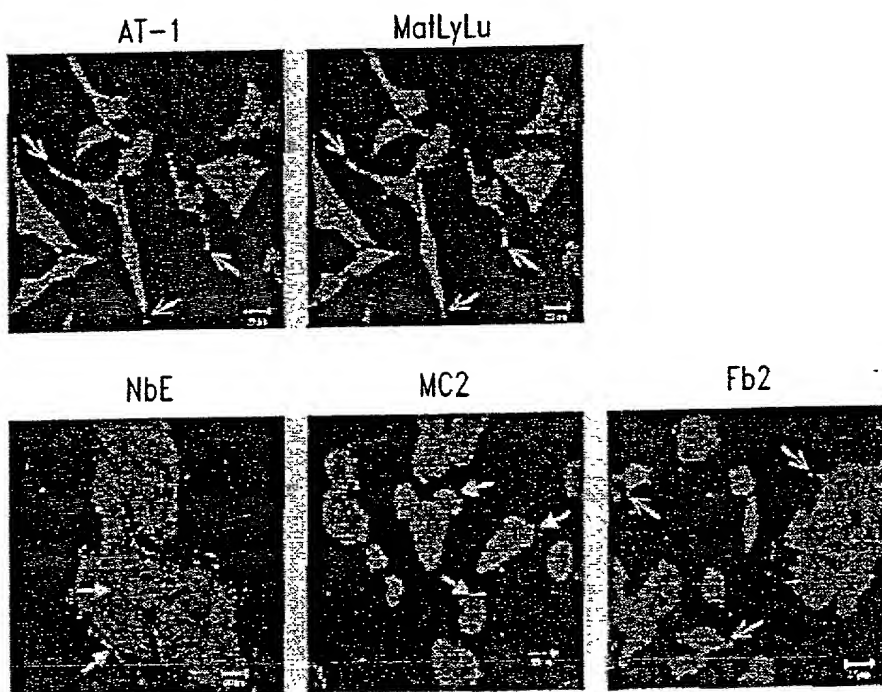


Fig. 43B

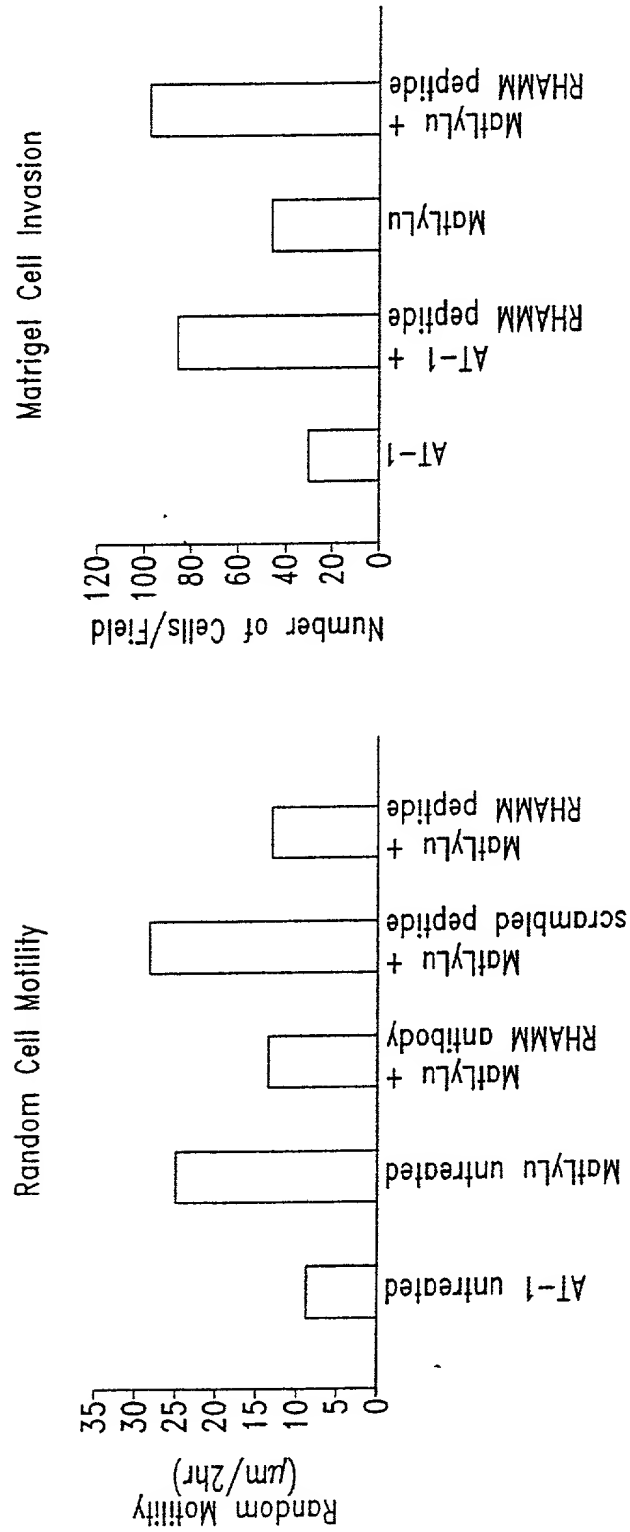


Fig. 44A

FIG. 44A

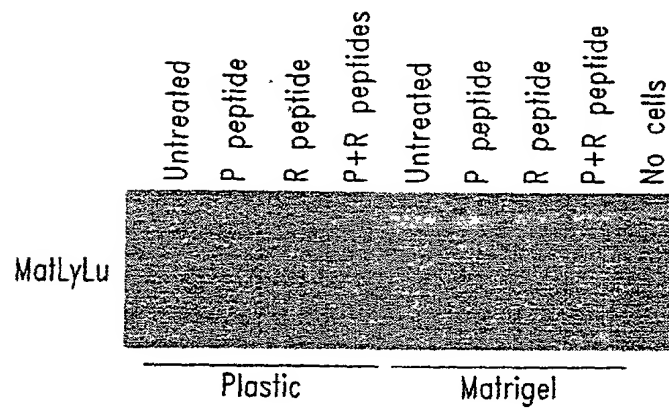
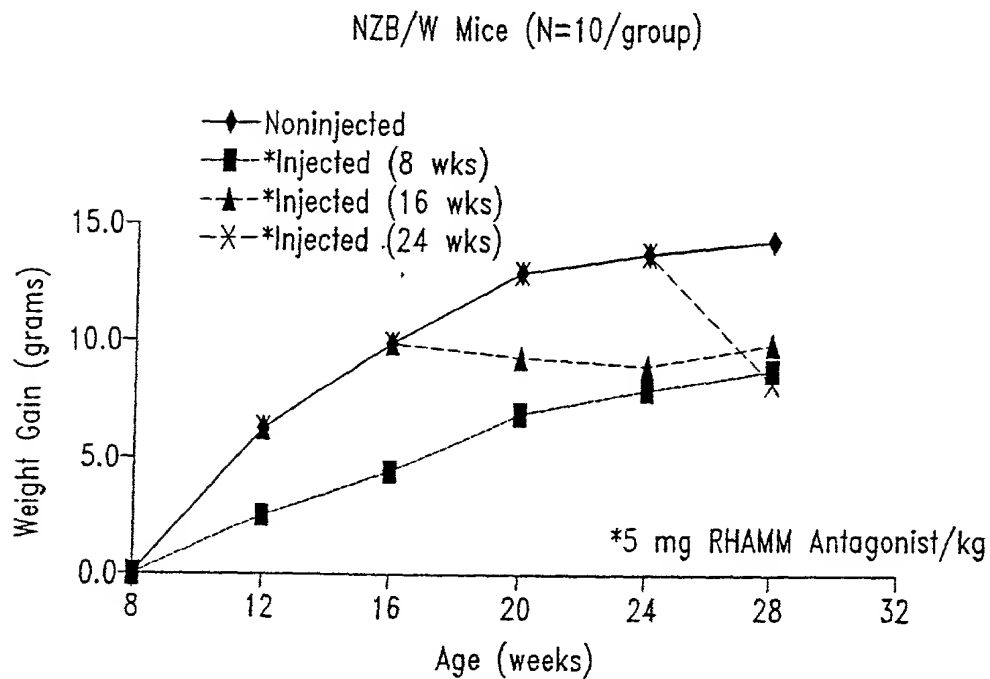


Fig. 44B



Note: This effect is not being seen with NOD mice

Fig. 45

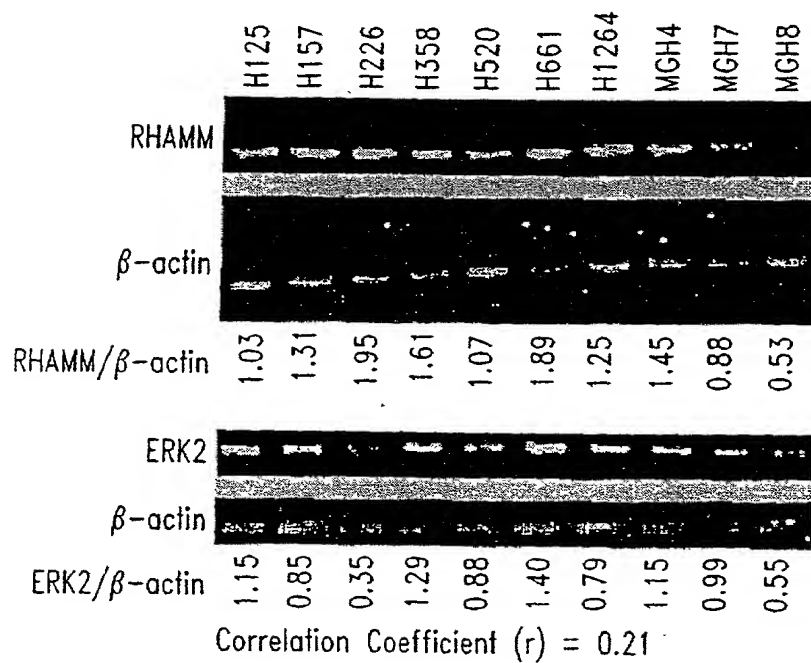


Fig. 46A

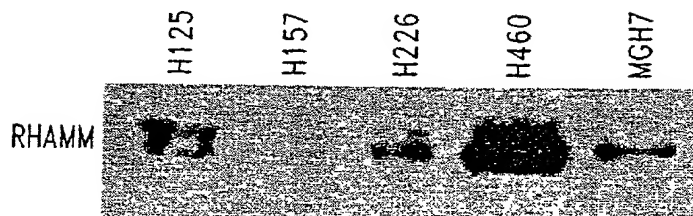


Fig. 46B

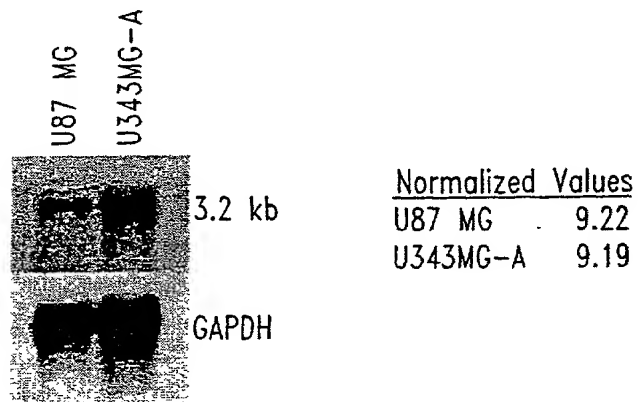


Fig. 47A

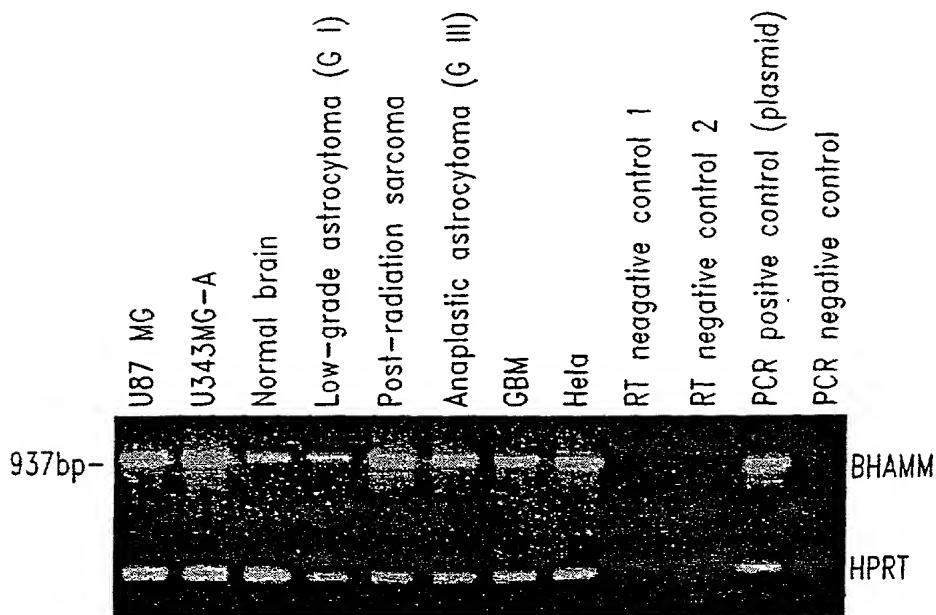


Fig. 47B

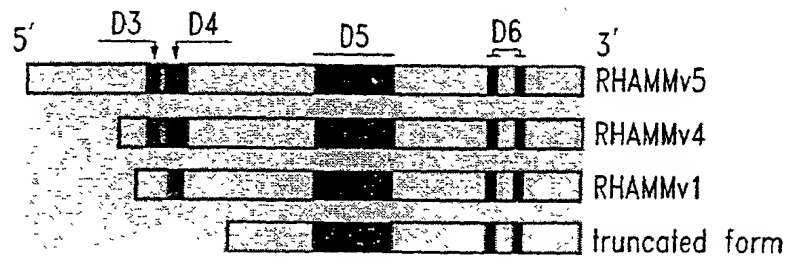


Fig. 48A

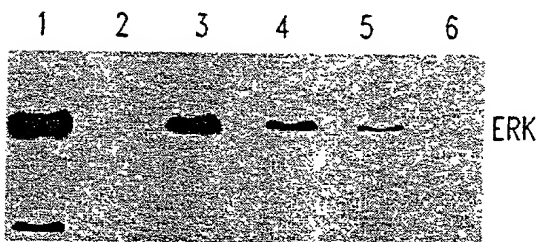


Fig. 48B

RHAMM binding protein cDNA (RABP) (partial)

GAA TTC GCG GCG GCG TCG ACC AAC AAG CCC CCT GCT GTT TCC CCG GGG
E F A A A S T N K P P A V S P G
GTG GTC TCC CCA ACC TTT GAA CTT ACA AAT CTT CTA AAT CAT CCT GAC
V V S P T F E L T N L L N H P D
CAT TAT GTA GAA ACA GAG AAC ATT CAG CAT CTC ACA GAC CCG GCT CTA
H Y V E I E N I Q H L T D P A L
GCA CAT GTG GAT AGA ATA AGC GAA GCC CGG AAA CTG AGT ATG GGA TCT
A H V D R I S Q A R K L S M G S
GAT GAT GCT GCC TAC ACA CAA GCT CTG CTG GTG CAC CAG AAG GCC AGG
D D A A Y T Q A L L V H Q K A R
ATG GAA CGG CTT CAA AGA GAG CTC GAG ATG CAA AAG AAA AAG CTG GAT
M E R L Q R E L E M Q K K K L D
AAA CTC AAA TCT GAG GTC AAT GAG ATG GAA AAT AAT CTA ACT CGA AGG
K L K S E V N E M E N N L T R R
CGC CTG AAG AGA TCA AAT TCC ATT TCC CAG ATA CCG TCA CTC GAA GAA
R L K R S N S I S Q I P S L E E
ATG CAG CAG TTG AGA AGT TGT AAT AGA CAA CTC CAG ATT GAC ATT GAC
M Q Q L R S C N R Q L Q I D I D
TTT GAC TGC TTA ACC AAA GAA ATT GCA TCT TTT TCA AGC CCG AGG ACC
F D C L T K E I A S F S S P R T
ACA TTT TAA CCC CAG CGC TAT TCA TAA CTT TTA TGA CAA TAT TGG ATT
T F *
TGT AGG CCC TGT GCC ACC AAA ACC CAA AGA TCA AAG GTC CAC CAT CAA
AGG TCG ACG CGG

Fig. 49A.

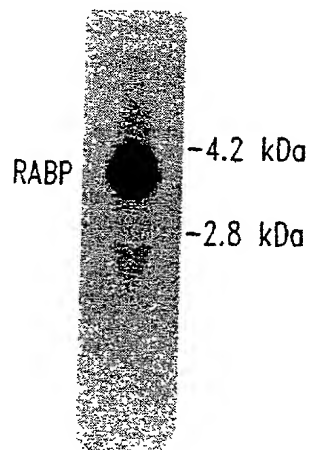


Fig. 49B

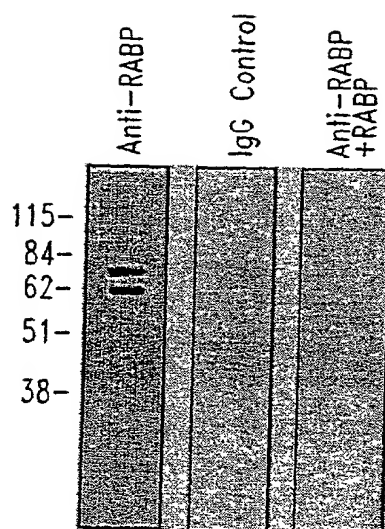


Fig. 49C

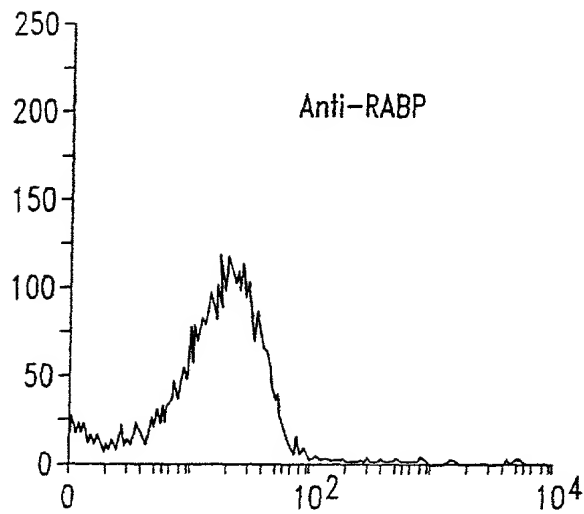
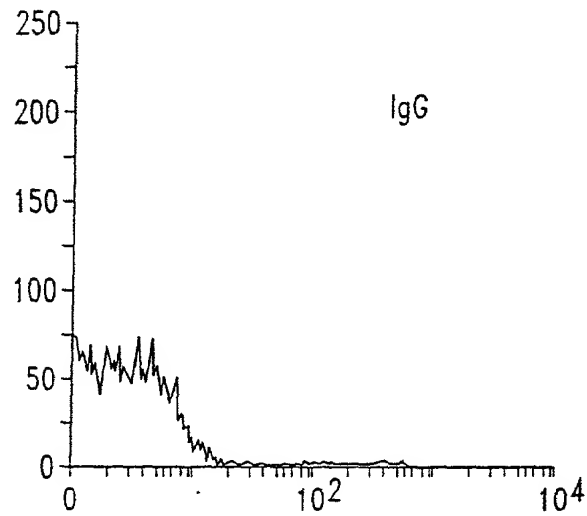
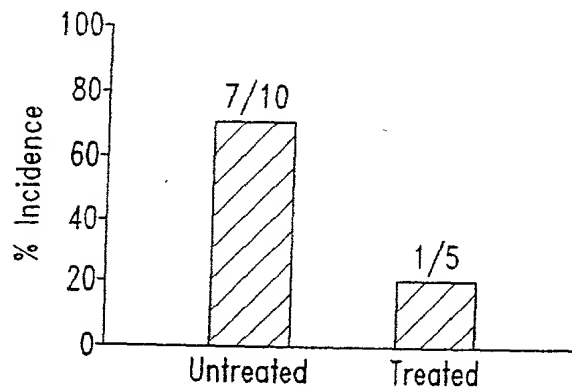


Fig. 49D

Human: 1 MSFPKAPLKRFPNDPSGAPSPGAYDVKTLEVLKGPVSFQKSQRFKQKQESKQNLNVDKDTLPASARKVKSSES
 Human: 76 KESQKNKDLKILEKEIRVLLQERGAQDRRIQDLETELEKMEARLNAALREKTSLSANNATLEKQILTRTNEL
 Human: 151 LKSKFSENGNQNLRLSLELMKLRNKRETKMRGMMAKQEGMEMKLVQTSLEESQKIAQLEGKLVSEIEKEI
 Mouse: 1 MRALSLELMKLRNKRETKMRSMVMKQEGMELKLQATQKDLTESKGIQVQLEGKLVSEIEKEI
 Human: 226 DEKSETEKLEYIEEISCASDQVEKYKLDIAQLEENLKEKNDIILSLKQSL EENIVILSKQVEDLVKQCLLEKE
 Mouse: 63 DEKCEKLEYIQEISCASDQVEKCKVDIAQLEEDLKEKDREILSLKQSL EENITF-SKQIEDLTVKQCLLETE
 Human: 301 KEDHVNRRNHNENLNAEMQNKKQFILEQQEHEKLOQKELQIDSLLOQEKELSSSLHQKLCFQEEMVKEKNLF
 Mouse: 138 RNDLVSKDRERAETLSAEMQILTERLALERQEYKLOQKELQSQSLLOQEKEL SARLQQQLCSFQEEMTSEKNVF
 Human: 376 EEELKQTLDELDKLOQKEEQAERLVKQLEEEAKSRAEELKLEEKLGKGAELKSSAAHTQATLLL-----
 Mouse: 213 KEELKLAELDAVQOKEEQSERLVKQLEEEKSTAEQLTRLDNLLREKEVELEKHIAAHQAAILIAQEKYNDTA
 Human: -----
 Mouse: 288 QSLRDVTAQLESVQEKYNDTAQSLRDVTAQLESEQEKYNDTAQSLRDVTAQLESEQEKYNDTAQSLRDVTAQLES
 Human: 443 QEKYDSMVQSLQEDVTAQFESYKALTASEIEDLKLENSSLQEKAAKAGKNAEDVQHQILATESSNQEYVRMLDLQ
 Mouse: 363 QEKYNDTAQSLRDVTAQLESYSSTLKEIEDLKLENLTLQEKVMAEKSVEDVQQILTAESTNQEYARMVQDLQ
 Human: 518 TKSALKETEIKEITVSFLOKITDLQNLKQEEDEFKQLEDEEGRKAEKENTTAELTEEINKWRLLYEELYNKTK
 Mouse: 438 NRSTLKEEIKEITSSFLEKITDLKNQLRQQDEDFRKQLEEKGRKTAEKENVMTLMEINKWRLLYEELYEYKTK
 Human: 593 PFQLQDAFEVEKQALLNEHGAAQEQNLKIRDSYAKLLGHONLKQKIKHVVKLDENSQKSEVSKLRQLAKKK
 Mouse: 513 PFQQQLDAFEAEKQALLNEHGATQEQNLKIRDSYAQLLGHONLKQKIKHVVKLDENSQKSEVSKLRSQVLRK
 Human: 668 QSETKQEEELNKVLGIKHFDPSKAFHHESKENFALKTPLKEGNTNCRAPMECQESWK*
 Mouse: 588 QNELRLQGEDKALGIRHFDPSKAFCHASKENF---TPLKEGNPNCC*

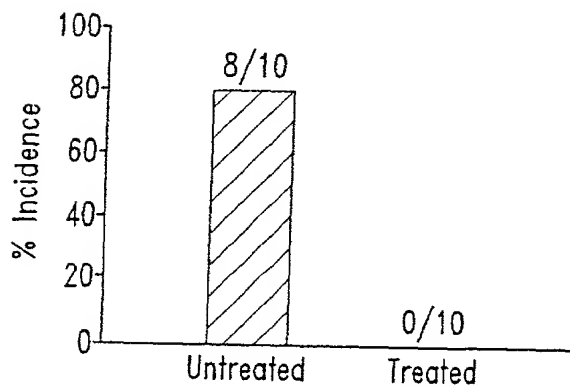
Fig. 50

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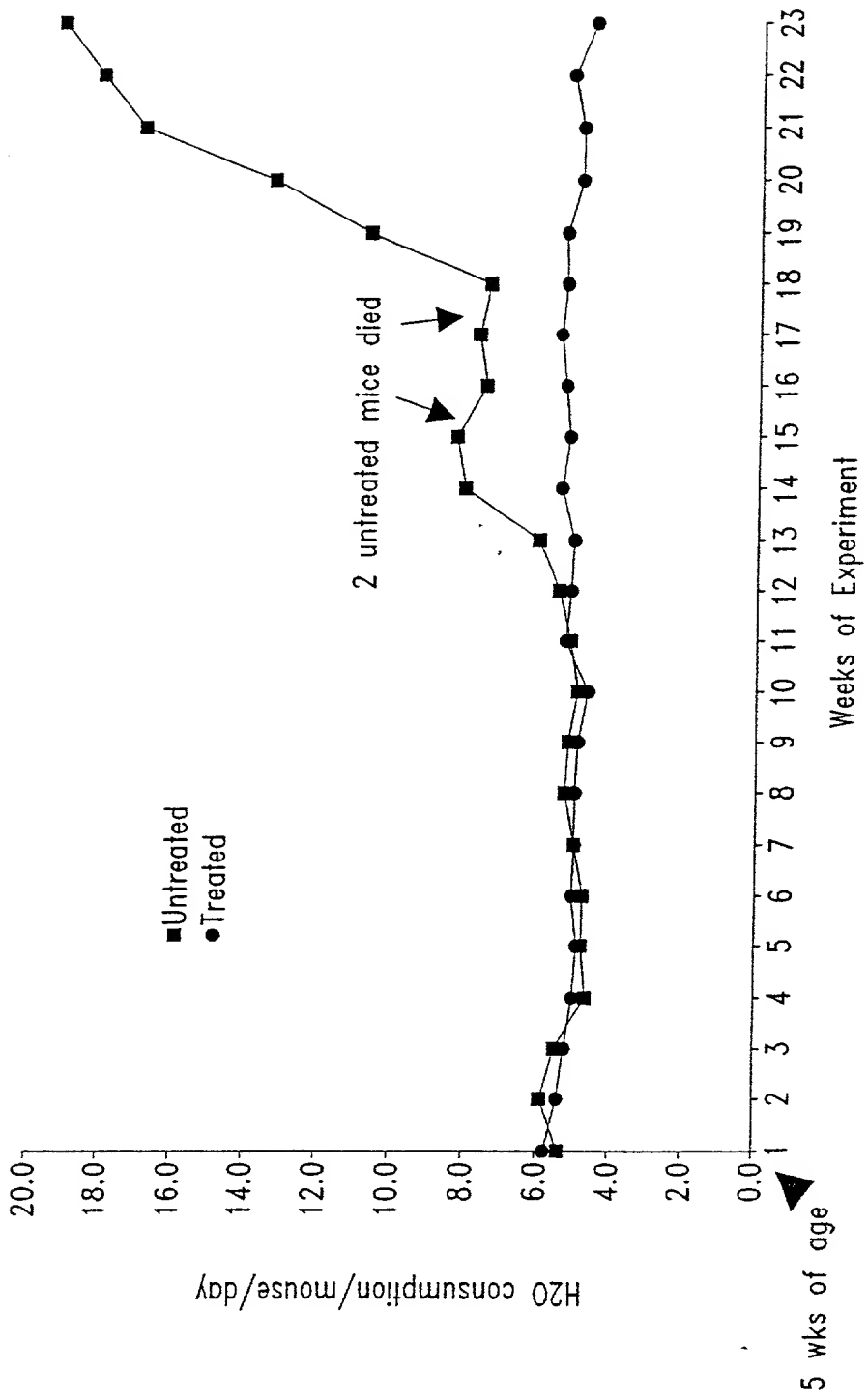
Note: normal blood glucose level = 99-140
Incidence of abnormal blood glucose level in NOD mice

Fig. 51



Incidence of abnormal urine glucose level in NOD mice

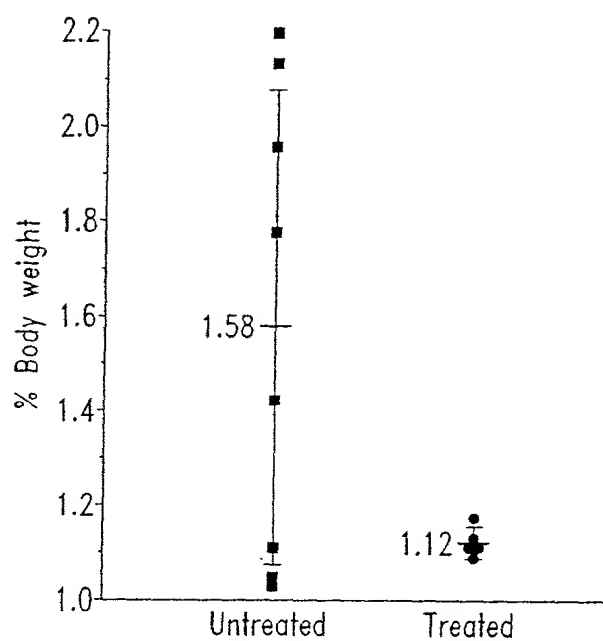
Fig. 52



Note: Increased H2O consumption indicative of Diabetes Insipidus, a complication of Diabetes Mellitus

Effect of P-16 peptide on water consumption in NOD mice

Fig. 53



Note: 2 untreated animals died during the course of experiment
Effect of P- 16 peptide on kidney weight in NOD mice

Fig. 54

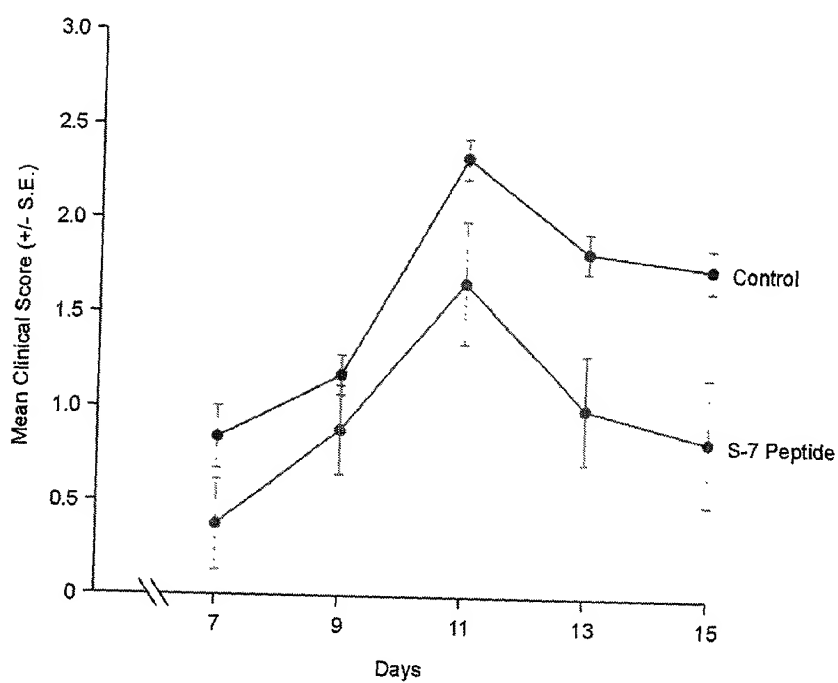


Fig. 55

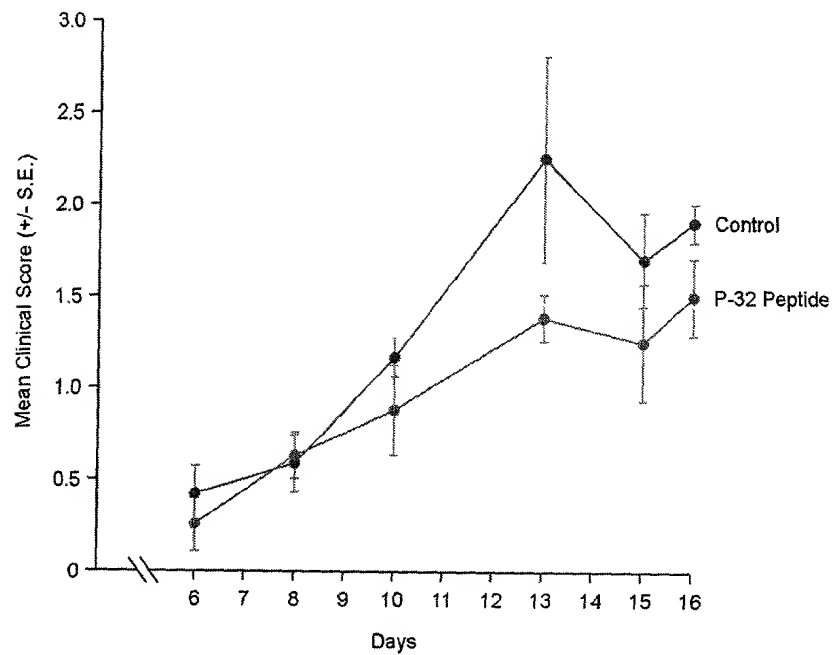


Fig. 56

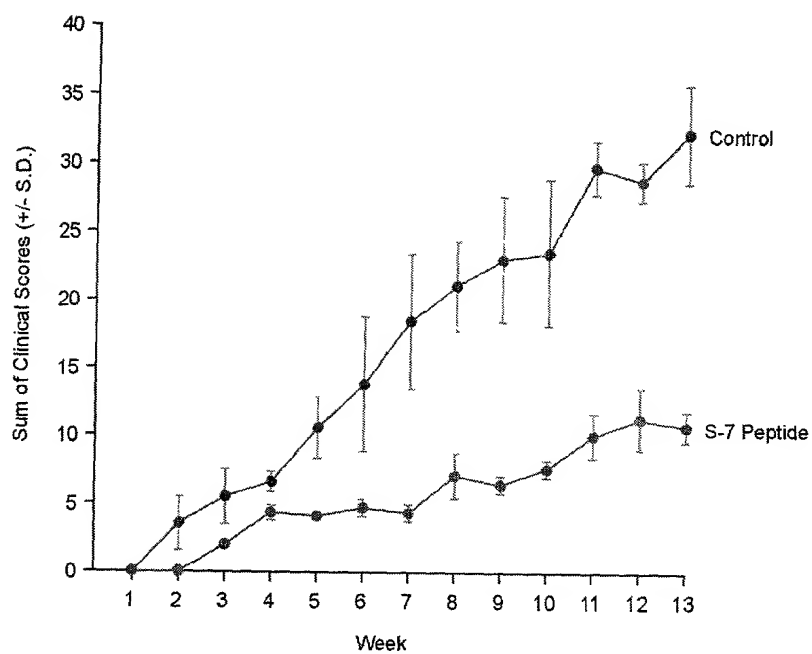


Fig. 57

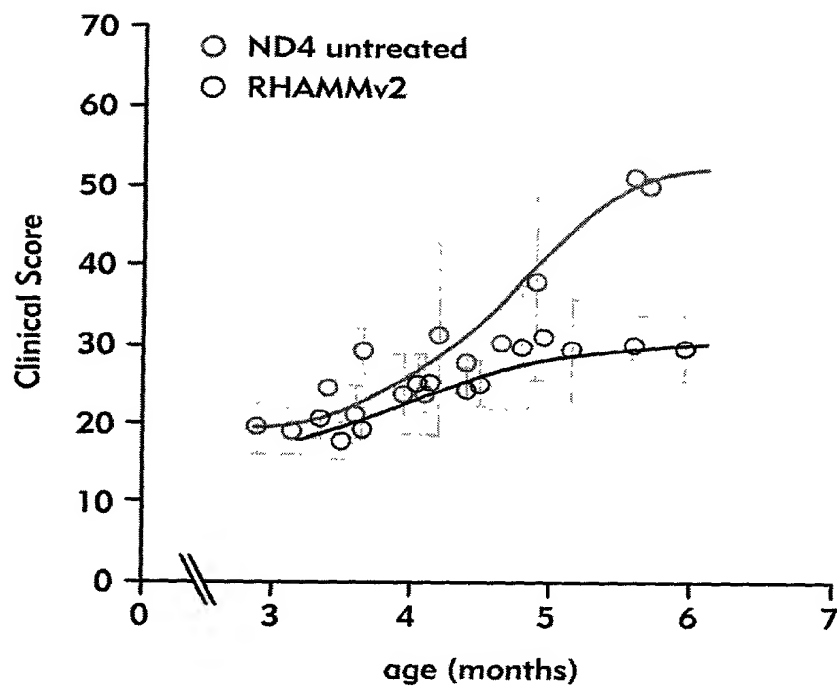


Fig. 58

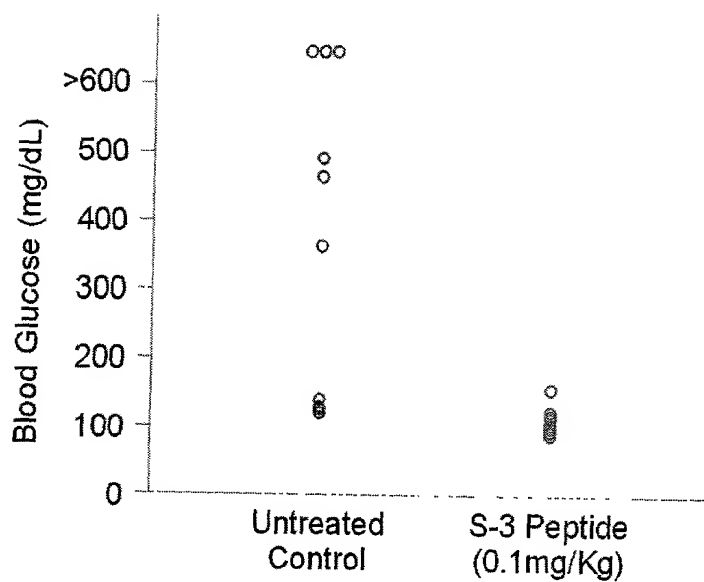


Fig. 59.

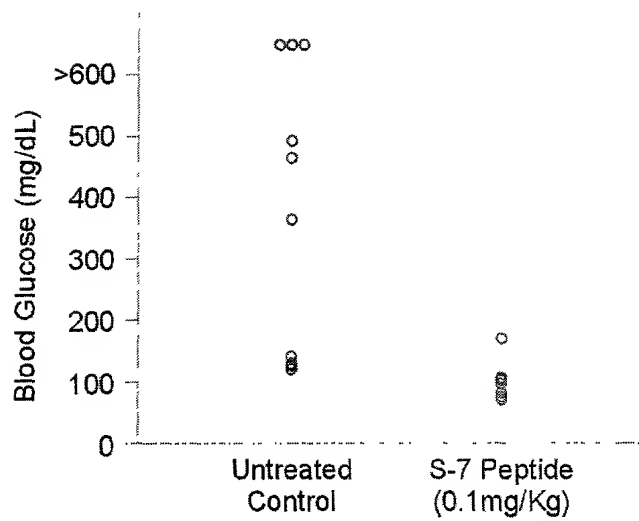


Fig. 60